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ABSTRACT

This report addresses the desirability of and mechanism for establishing accreditation procedures for fire-related training and education programs in the U.S. and the role of the National Fire Academy in such a process. It also considers the appropriateness of accreditation for the Academy itself. First, a list of the members of the Advisory Committee on Fire Training and Education is given. An executive summary follows, explaining the accreditation process, the classifications of fire-related academic programs, a description of the scope of fire service training, and a summary of the efforts of the Academy. Chapter 1, an introduction, analyzes the federal legislation which resulted in the various fire service programs and their accreditation methods. Chapters 2-4 discuss accreditation of fire education, fire service training, and the National Fire Academy. The appendixes include a glossary, an accreditation evaluation review of engineering programs, accreditation questionnaire and results, text of the federal fire prevention legislation, criteria for a continuing education unit, and biographies of the developers of this report. (CT)

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Accreditation in Fire Training and Education:

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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The Final Report of the Advisory Committee on Fire Training and Education of the National Academy for Fire Prevention and Control

CE 019 886

U.S. DEPARTMENT OF COMMERCE
United States Fire Administration
National Academy for Fire Prevention and Control

VT

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Fire Administration
Washington, D.C. 20230

January 31, 1979

Administrator
United States Fire Administration
United States Department of Commerce
Washington, D.C. 20230

Dear Sir:

Transmitted herewith is the report to the United States Fire Administration (USFA) by the Advisory Committee on Fire Training and Education of the National Academy for Fire Prevention and Control, as required by Section 7(k) of the Federal Fire Prevention and Control Act of 1974 (Public Law 93-498) concerning accreditation.

The report addresses the desirability of and mechanism for establishing accreditation procedures for fire-related training and education programs in the United States and the role of the National Fire Academy in such a process. The report also considers the appropriateness of accreditation for the Academy itself.

During the past decade, there has been a steady growth in the number of training and education programs to meet the need for increased professionalism and better internal management in the fire service. With the growth of these programs comes the need for a system of evaluation and measurement to ensure that the training and educational opportunities meet the needs of the fire service and related professions.

During the latter stages of the Committee deliberations, the establishment of the Federal Emergency Management Agency (FEMA), including the USFA as one of its elements, was announced. The Committee considered, at length, the possible impact of the reorganization within the context of the scope of the report. Because of the general nature of our recommendations and the potential immediate and long-range impact on fire education, training, and the National Fire Academy, we consider the findings independent of this reorganization.

It is the earnest hope of the members of the Committee that the recommendations of this report will be adopted and supported by the USFA for the development of improved fire training and education programs in the United States.

Sincerely,

David M. McCormack
Chairman

Accreditation in Fire Training and Education

Abstract: A report to the Administrator of the United States Fire Administration by the Advisory Committee on Fire Training and Education of the National Academy for Fire Prevention and Control. The Committee was created by the Federal Fire Prevention and Control Act of 1974 (Public Law 93-498). The report addresses the desirability of and mechanism for establishing accreditation procedures for fire-related training and education programs in the United States and the role of the National Fire Academy in such a process. The report also considers the appropriateness of accreditation for the Academy itself.

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*Served from October 1977.

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EXECUTIVE SUMMARY

The Federal Fire Prevention and Control Act (Public Law 93-498) directed the Advisory Committee on Fire Training and Education to consider the desirability of establishing accreditation procedures for fire-related training and education programs nationally; the mechanism for such accreditation procedures, if accreditation is deemed desirable; the perceived role of the National Fire Academy within any recommended accreditation program and structure; and, finally, the desirability of accreditation of the Academy itself.

Accreditation

Accreditation is the process by which an agency or organization evaluates and recognizes an institution or program of study as meeting certain predetermined standards. Accreditation applied to an institution as a unit is called institutional (or regional) accreditation whereas accreditation concerned with specific academic programs of study or vocational training is called specialized (or programmatic) accreditation. Specialized accreditation is generally associated with career-oriented professional fields such as law, medicine, and engineering.

Accreditation in the United States is a voluntary, peer group process involving an accreditor (the agency or organization offering the accreditation service) and the accreditee (the institution or organizational entity holding institutional or specialized accreditation). There is only one valid reason for the accreditation process: the welfare of society. Over the years, there have been fringe benefits and

auxiliary uses of the accreditation process but all have had a direct relationship to the public interest. Throughout its deliberations, the Advisory Committee considered the issue of accreditation in this generally accepted context and definition.

Fire service training and fire-related education are not synonymous. Training is particularly concerned with the development, maintenance, and upgrading of skills, knowledge, and procedures relevant to the operational fire service, whereas fire-related education is more academic in nature and usually leads to a degree. Accordingly, this report addresses fire service training and fire-related education programs separately.

Education

Fire-related academic programs generally fall into one of three generic classifications based on their educational objectives and career orientation: fire science and fire technology; fire administration/management; fire engineering technology and fire engineering. With the exception of fire engineering, which is a four-year program, the others are generally available as associate or baccalaureate programs. In 1976, there were 216 associate and nine baccalaureate programs in fire science/technology; ten associate and six baccalaureate programs in fire administration/management; two associate and three baccalaureate programs in fire engineering technology, and one associate and two baccalaureate programs in fire engineering.

Fire-related academic programs are extremely diverse in structure, content, and educational objectives, particularly in two-year associate degree programs in fire science/technology and fire administration.

Such programs are generally oriented to local and/or regional needs. Baccalaureate degree programs in fire science/technology and in fire administration/management are still relatively few in number, but show similar diversity. Baccalaureate programs in fire engineering as well as the associate and baccalaureate programs in fire engineering technology are too few for general classification, but generally follow the accreditation guidelines of the Engineers' Council for Professional Development (ECPD) in structure and objectives. The ECPD is the generally recognized authority for the accreditation of academic programs in engineering and engineering technology and includes fire-related programs of this type in its current listing of accredited programs.

Although no definitive study has analyzed the specific course requirements of fire-related academic programs, a brief and cursory review of a number of representative curricula indicates that many programs lack sufficient depth and substance to support specific career objectives. These tendencies pose problems for students who may have difficulty evaluating which program can help them reach their career goals or who might have trouble in transferring credits from one institution to another.

Two important needs appear evident: (1) documentation and evaluation of the knowledge required for specific careers in the fire service; and (2) development of minimum criteria in order to evaluate academic programs for the fire service and related professions.

The Advisory Committee recommends the establishment of a specialized program of accreditation to meet the second of the above needs. This should be oriented to fire-related education programs in fire science, fire technology, and fire administration/management, and should

follow the general pattern of the specialized peer group accreditation process used for professional academic programs. The Advisory Committee believes that a new, independent organization will be required to design, develop, and implement the accreditation process and procedures. Although a direct role by the National Fire Academy would be inappropriate, the Academy should play a major role in establishing the appropriate accreditation organization, and helping it to establish its charter, secure financing, design its operational format, establish minimum criteria and standards, and develop the financial mechanism necessary to support its operations.

Accordingly, the Advisory Committee recommends:

1. An independent organization should be established that is charged with the implementation of a specialized (programmatic) review/evaluation process directed to the accreditation of fire-related education programs with professional career objectives in fire science, fire technology, and fire administration/management.

2. The organization should meet the recognition requirements of the Council on Postsecondary Accreditation (COPA) and of HEW's Office of Education, Bureau of Postsecondary Education, Division of Eligibility and Agency Evaluation.

3. The National Fire Academy should not undertake, or be involved in, the recommended accreditation program. The Academy, however, should play a lead role in seeking to establish an appropriate accreditation organization, in establishing its charter, in securing financing, and in assisting it through the formative stages of determining an operational format, establishing criteria and standards, and evolving an organizational structure.

Training

The Advisory Committee defines training as the teaching, drill, or discipline necessary for the mastery of a skill or group of skills. It is the process of making one proficient to perform certain vocational skills or tasks.

Fire service training takes place in a variety of environments and administrative organizations. It varies in scope from the nonexistent or rudimentary to the sophisticated and complex. Fire service training activities are carried out by various agencies of the Federal Government and the military; regional, state, and local communities; and industrial organizations. Most fire service training--including basic entry level, skills, maintenance, and specialist training--takes place at the local level. Increasingly, however, cooperative, regional, and state training programs are shouldering the responsibility for fire service training. Probably no state has an ongoing program that meets the needs of every fire service member and certainly no state can provide training to every member of the fire service every year.

In general, volunteer fire departments have fewer training programs, fewer training facilities, and lower funding for training than do either paid or combination (part paid, part volunteer) fire departments. Forty-eight states have at least a central or satellite training facility, a county training facility, or some other organized facility available for fire service training.

Statistical information available to the Advisory Committee detailed significant features of state fire service training programs in 1975:

- Of 20 training program elements relevant to basic recruit training, only eight are used by more than 33 states.
- Of eight specialist training program elements, only two (pump operator and instructor training) are offered by more than half of the states.
- Slightly over one-fourth of the states responding offer training in tactics, prefire planning, strategy, and administration.

- Approximately one-fourth to one-third of state fire training programs offer special training in such areas as hazardous materials, liquefied petroleum gas, flammable liquids, vehicle extraction, arson detection, and principles of instruction.

- Twenty-nine states report fire prevention training programs but none includes all types. Officer development, administrative training, and management skills programs are offered less frequently than others.

Other areas important in the comprehensive coverage of fire service training show similar variability when analyzed on a statewide basis. If nothing more, the statistics illustrate the extreme variability in the type of training programs available--or the lack thereof--to fire service personnel, paid or volunteer, for career development and performance improvement. Regional differences and urban vs. rural needs compound the complexity of providing training programs necessary for the continuing improvement and advancement of fire service personnel.

Considering these statistics, it is not surprising to find little consensus on the requisite standards for a particular training activity or a barometer for standards quality measurement. Each training program, or course, generally incorporates those topical elements most suited to the needs and scope of its immediate audience, courses and training covering the same nominal topical area will vary greatly in scope of coverage, depth of treatment, and the achievement levels required of participants.

The National Professional Qualifications System (NPQS) established by the Joint Council of National Fire Service Organizations, is the first organized effort to develop standards as a basis for a system of nationally standardized examinations by appropriate agencies (Federal, state, or local). The use of such standards is to be encouraged; yet

to be effective in a total system, there is need for a companion development of training program elements, procedures, and characteristics to assist fire service personnel desiring the certification or recognition embodied by the NPQS standards.

Accreditation, as currently applied to various professional academic programs, does not appear suitable for application to fire service training programs for a variety of reasons, including: the extremely large number of fire service organizational entities having fire training responsibilities; the fact that fire service training requirements are uniquely associated with a local situation in terms of need and objective; and the wide diversity of fire service job classifications.

At the same time, the Advisory Committee recognizes that some form of evaluation and recognition of training programs is needed and desirable to assure: (1) that a given training program meeting acceptable standards is consistent with and accomplishes its objectives; (2) that the mode of delivery and the quality of instruction is of a high order consistent with the needs of modern fire service training; and (3) that training programs are serving the vocational or avocational needs of participants and are furthering fire service career development.

It was also agreed that:

1. The evaluation process should be directed at:
   (a) the specific program content and objectives;
   (b) the quality of instruction; and
   (c) the facilities utilized.

2. The standards used as a basis for evaluation should be developed by independent peer groups.

3. Programs should provide some means by which participants are given tangible recognition for their successful achievement.

4. Participation in the evaluation process should be voluntary.

Some major problems to be faced by such an evaluation system will relate to the initiative, resource requirements, and advisory expertise needed in the early design stages and subsequent implementation, including the necessary interaction and responses from organizations most likely to be participants in such a program. It is in these areas that the National Fire Academy can provide an effective and valuable service to fire service training.

A nationally accepted evaluation system would help to introduce some degree of commonality of quality to fire training programs without attempting to impose strict or restrictive uniformity. Such a system would benefit and provide incentive to participating fire service personnel, those providing fire service training, and to the National Fire Academy. In view of these considerations, the Advisory Committee recommends:

1. A voluntary evaluation process directed to the recognition of fire training programs should be established.

2. That the National Fire Academy would provide the initiative and funds to organize appropriate peer groups that would, with Academy advice and assistance, design and maintain an evaluation system.

3. The National Fire Academy should promote and encourage the adoption of a system for the recognition of an individual's successful completion of a fire training program.

The National Fire Academy

Although the organizational structure and the goals of the Academy are well defined, the next five years will be critical to its development. During this period, the Academy will finalize and implement its course and curricular structure in fire education and training and will recruit

faculty. In essence, the Academy must complete the transition to a recognized academic and service institution meeting the needs of fire education and training on a nationwide basis.

Currently, there is no accrediting agency or organization serving the fire education or fire service training fields other than the ECPD, which accredits fire engineering and fire engineering technology degree programs. As the Academy does not plan to develop an engineering focus, it seems premature to consider specialized accreditation of the Academy pending further developments in fire service education accreditation and fire service training evaluation as indicated earlier.

Institutional accreditation would appear to be a logical first step to be considered for the Academy. The Middle States Association of Colleges and Schools (MSA) was used to study institutional accreditation because the initial proposed location for the National Fire Academy was the Marjorie Webster Junior College site in Washington, D.C. Regional accrediting associations, such as the MSA, have a form of recognition, as a prelude to eventual institutional accreditation, known as "Candidate for Accreditation Status." The detailed procedures and requirements for seeking institutional recognition are lengthy and time consuming. Given the current state of planning, development, and implementation of the Academy and its educational programs, institutional accreditation--or candidate status-- does not appear to be an appropriate Academy goal for the foreseeable future. The eventuality and benefits of seeking such recognition will depend upon the developed form of the Academy and its programs.

There is a third approach frequently used by developing institutions, proprietary education and vocational training institutions, and the education/training entities of some government agencies; this is "recognition through affiliation." While not accreditation per se, it does provide a measure of acceptance and accomplishes many of the benefits of accreditation. Recognition through affiliation is a cooperative process whereby the Academy would implement formal contractual arrangements with established colleges and universities involving interinstitutional transfer of courses and course credits, and faculty interchanges.

There are two affiliation alternatives possible:

1. Affiliation arrangements could be sought with a single, accredited institution.

2. Affiliation arrangements could be sought with a number of accredited institutions on a wide geographic basis.

Affiliation arrangements would have considerable advantages for the Academy: (1) such arrangements could be initiated almost immediately, and could proceed concurrently with the development and implementation of the short- and long-range academic plans of the Academy; (2) Academy courses, delivered at the Academy, would be accepted by the affiliated college or university toward one or more of its degree programs; and (3) courses taken at the affiliated college or university could be integrated into the academic/training programs of the Academy.

Acceptance of Academy courses to fulfill degree requirements at affiliated institutions, by virtue of the generally recognized standing of the affiliated institution in the academic community, would also assist students to transfer course credits to nonaffiliated institutions.

Affiliation would also provide the Academy the benefit of the

affiliated institutions' experience with the accreditation evaluation process; these institutions could be a valuable adjunct to the growth and development of the Academy.

Accordingly, with regard to the question of the accreditation of the National Fire Academy, the Advisory Committee recommends:

1. Specialized accreditation does not appear suited to the planned academic education and training programs of the Academy.

2. Institutional accreditation of the Academy may be desirable, depending upon the final developed form of the Academy and its programs.

3. The Academy should seek to establish affiliation arrangements with appropriate colleges and universities to realize current and long-term benefits of association with established institutions.

CHAPTER 1

INTRODUCTION

In 1973, the National Commission on Fire Prevention and Control noted the pressing need for better training and education in the fire services in its report, America burning.[1] In 1974, Congress responded to the Commission's recommendations with the enactment of the National Fire Prevention and Control Act (Public Law 93-498), which created the National Fire Prevention and Control Administration (NFPCA)[2] and, within it, the National Academy for Fire Prevention and Control.[3]

The Act also established the Advisory Committee on Fire Training and Education to examine further the issue of accreditation that had been identified by the National Commission.

Section 7(k) of the Act authorized the Committee to:

> "...inquire into and make recommendations regarding the desirability of establishing a mechanism for accreditation of fire training and education programs and courses, and the role which the Academy should play if such a mechanism is recommended."

This charge speaks only of accreditation but the ramifications and potential impact on fire training and education are broad and complex. Fire service training and fire-related education are not synonymous; training is particularly concerned with the development, maintenance, and upgrading of skills, knowledge, and procedures relevant to the fire service, whereas fire-related education is primarily

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[1] National Commission on Fire Prevention and Control, America Burning (Washington, D.C.: U.S. Government Printing Office), May 4, 1973.

[2] Now known as the United States Fire Administration.

[3] The complete text of the Act appears in Appendix H.

academic in nature. Accreditation must be viewed as it applies to the Academy and its programs, as well as to the wide variety of fire training and education programs throughout the nation. Finally, the role of the Academy in each of these considerations needs clarification.

Accordingly, the Advisory Committee on Fire Training and Education decided that it could most effectively discharge its obligation if the basic charge were considered in three parts:

Fire-Related Education. In Chapter 2, the Committee considers the state of fire-related education programs at private and public institutions, the need for the accreditation of such programs, what type of accreditation is most suitable, and finally, the role of the Academy in any eventual accreditation process.

Fire Service Training. In Chapter 3, the Committee reviews the status of fire service training at the national, state, regional, and local level. It addresses the need for an evaluation process for training programs and the role of the Academy in fire service training and evaluation.

The National Academy. In Chapter 4, the Committee considers whether and how the Academy should seek accreditation for itself and its programs. It addresses the types of accreditation available to the Academy and the justification for accreditation within the Academy's overall mission.

The remainder of this chapter provides background on the accreditation process and a description of the responsibilities of the NFPCA and the National Fire Academy.

Accreditation

What is accreditation? What purpose does it serve? What types of

accreditation are available in the United States? What determines acceptance or recognition of any accreditation process? What is the relationship of accreditation to certification or licensure? These questions must be answered before examining accreditation as it applies to fire service training, fire-related education, and the Academy.

Accreditation has been defined as:

> "The process by which an agency or organization evaluates and recognizes a program of study or an institution as meeting certain predetermined qualifications or standards. It shall apply only to institutions and their programs of study or their services."[3]

Two forms of accreditation currently used in the United States are institutional (or regional) and specialized (or programmatic). Specialized accreditation is concerned with the quality of educational programs preparing students for the practice of a profession--such as law, medicine, or engineering. Fire training or fire-related education programs would involve this type of accreditation. Institutional accreditation is generally concerned with the overall ability of an institution to meet its educational objectives with lesser concern about the quality of its individual programs. This type of accreditation is also concerned with the institution's faculty, financial stability, adequacy of facilities such as libraries, and with provisions for counseling services.

Organizations concerned with specialized accreditation may or may not require regional accreditation as a prerequisite. Organizations that provide specialized accreditation are generally national in scope and membership, with a recognized leadership position in the profession.

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[3] National Commission on Accrediting, Study of Accreditation of Selected Health Educational Programs (Washington, D.C.), 1972. The NCA has since been superseded by the Council on Postsecondary Accreditation.

They are concerned with the maintenance of educational quality and responsiveness to the changing requirements of the profession. Examples of specialized accreditation agencies are the National Architectural Accrediting Board, Inc., with its program for the accreditation of first professional degree programs in architecture, and the Engineers' Council for Professional Development, the recognized authority for the accreditation of degree programs in engineering and engineering technology.

Institutional accreditation is generally carried out by regional associations and their affiliated commissioners whose members are representatives of accredited institutions. Examples of such regional associations are the Middle States Association of Colleges and Schools and the New England Association of Schools and Colleges. The United States Commissioner of Education annually publishes a list of HEW-recognized accrediting agencies and associations.[4] The listing of March 1977 includes six major regional accrediting associations and their affiliated accreditation commissions and approximately 50 specialized accrediting organizations.

Accreditation is a voluntary, peer group process involving an accreditor (the agency or association offering the accreditation services) and an accreditee (the institution holding institutional and/or specialized accreditation). The question of acceptance and recognition is vital to the success of any program of accreditation. To gain this, accrediting organizations generally seek recognition by either the HEW Commissioner of Education or the Council on

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[4] Bureau of Postsecondary Education, Office of Education, United States Department of Health, Education, and Welfare, Nationally Recognized Accrediting Agencies and Associates, Criteria and Procedures (Washington, D.C.), March 1977.

Postsecondary Accreditation (COPA), or both. COPA is a nongovernmental organization formed in 1975 by the merger of two national, private organizations: the National Commission on Accrediting and the Federation of Regional Accrediting Commissions of Higher Education. Generally, academic institutions require listing (or recognition pending) by HEW and/or COPA before seeking the evaluation services of an accreditor.

In reality there is only valid reason for the accreditation process: the welfare of society. This process has fringe benefits and auxiliary uses but these all have a direct relationship to the public interest. Selden lists functions characteristic of the present accreditation processes, which may be paraphrased as follows:[5]

- Certifying that a given program or institution has met established standards.
- Assisting prospective students in identifying programs or institutions meeting certain standards of academic quality.
- Assisting institutions in determining the interinstitutional acceptability of transfer credit.
- Assisting the public in identifying institutions and/or programs meeting certain standards for the investment of public and private funds, or for determining eligibility for Federal assistance.
- Offering some protection against internal or external pressures that might affect the quality of the program.
- Creating goals and objectives for self-evaluation and program development involving the total spectrum of faculty and staff.
- Providing a stimulus for the general raising of education standards and keeping the educational process abreast of changing needs and requirements.
- Assisting in establishing a base for professional licensure certification.

[5] William K. Selden, Accreditation and the Public Interest, Washington, D.C.: Council on Postsecondary Accreditation, June 1976.

There are several things that accreditation is not. Accreditation of a program or an institution does not mean that an individual is accredited; only that the program or the institution met certain standards of quality at the time of evaluation. The quality control implied in the accreditation process refers to the academic production process, not to the product--the graduate--of the process. This product warranty--certification or licensure--is the province of licensing or other bodies involved with recognizing individual abilities. Similarly, accreditation does not certify, qualify, or otherwise attest to the continuing qualifications--again, product warranty--of graduates of an accredited program. Finally, and most importantly, accreditation does not and should not involve a grading of programs or institutions; it is simply recognition that certain standards have been met.

The USFA and The National Fire Academy

In responding to the mandates of Public Law 93-498, the USFA has organized its responsibilities into four main areas of activity.

The National Academy for Fire Prevention and Control (The National Fire Academy): Advances the professional development of the fire services and others involved in fire prevention and control, and administers a system of assistance to state and local fire training programs as well as educational fire-related programs in colleges and universities.

The Public Education Office: Determines through research, testing, and experimentation the most effective public education programs and modes to reduce fire losses, and assists in the implementation of such programs.

The National Fire Data Center: Collects, analyzes, and disseminates statistical data and other fire-related information from many sources that relate to the prevention, occurrence, control, and results of all types of fires; through its National Fire Incident Reporting System (NFIRS), the Data Center has initiated a three-way exchange of fire incident and casualty data among the local, state, and Federal levels with each level benefiting from the other two; the Data Center conducts special investigations of fire problems identified by the use of collected fire incident data; the Center includes a library and reference service for access to such information.

The National Fire Safety and Research Office: Provides the planning, research, and technology to significantly decrease fire-caused deaths, injuries, and economic losses, and improve the cost-effectiveness of fire protection.

The Administration also works with the Fire Research Center of the National Bureau of Standards on its program of basic and applied research. In addition to technical and educational programs, the Administration has the authority to recognize meritorious achievement by individuals and organizations in the fire service.

The National Fire Academy is yet in its formative stages. To accomplish its objectives, the Academy is developing a three-pronged approach: education and training programs, education planning and evaluation; and Academy assistance programs. This report is primarily concerned with accreditation--of the Academy itself as an academic institution and of fire-related education and training across the country. Particularly addressed is the possible role of the National Fire Academy in these activities.

At present, Academy activities are developing in accordance with Public Law 93-498, which directed the Academy to act as the hub of a national system to assist, strengthen, and support state and local delivery systems. The legislation requires the Academy to:

- Present courses on specific fire-related subjects.
- Develop a fire education and training system mutually coordinating education and training efforts in the nation.
- Establish an instructional materials resource center.
- Evaluate alternative teaching techniques in the field of fire service education and training.
- Establish an adjunct faculty to participate in the education and training activities of the Academy to complement resident Academy faculty.
- Develop curricula and delivery systems appropriate to fire service education and training programs of the Academy.
- Conduct conferences, seminars, and colloquia appropriate to the field of fire service education and training in conjunction with various organizations and agencies.
- Encourage new programs and strengthen existing programs of education and training by local fire services, units, and departments, state and local governments, and private institutions by providing technical assistance and advice.
- Provide assistance to state and local fire service training programs through grants, contracts, or other appropriate mechanisms.

In addition to the above, the Academy will assist in the development of a nationwide college and university fire protection education system to provide a maximum opportunity for associate, baccalaureate, and graduate fire education program development.

CHAPTER 2

ACCREDITATION OF FIRE EDUCATION

Academic fire-related programs offered in the United States generally fall into one of three generic classifications based on their educational objectives and career orientation:

- Fire science and fire technology academic programs leading to associate or baccalaureate degrees and one-year certificates.
- Fire administration academic programs leading to associate or baccalaureate degrees.
- Fire engineering and fire engineering technology programs; the engineering programs at the baccalaureate degree level, and the engineering technology degree programs leading to associate or baccalaureate degrees.

A rigorous differentiation between fire science and fire technology academic programs is not possible because these programs have a considerable overlap of content and objectives. However, fire science programs generally are oriented to an understanding of the basic sciences relevant to fire fighting, fire protection, and fire prevention whereas technology programs place a major emphasis on the technical implications of these sciences.

Fire administration programs, as the name implies, are oriented to the administrative, legal, managerial, and business aspects of the fire service.

Fire engineering and fire engineering technology programs are generally more restrictive and specific in their program content and career objectives for the students. Engineering programs are generally concerned with systems analysis and design related to fire protection systems, equipment, and operations whereas fire engineering technology

programs are more concerned with the application of technical skills in support of the engineering function. Engineering technology is generally considered to lie in the occupational spectrum between the craftsman and the engineer, at the end of the spectrum closest to the engineer.[1]

Bryan has summarized the historical development of fire-related programs.[2] He notes that the first two-year fire science/technology program originated as a certificate program at Oklahoma A&M College (now Oklahoma State University) in 1937. The earliest two-year associate degree program began in 1949 at the East Los Angeles Community College. The first program on the east coast--at the Rowen Technical Institute in Salisbury, North Carolina, was not established until 1964. Four-year baccalaureate programs in fire science/technology are even more recent and exist today at a handful of schools including the New York City College system, the University of New Haven, and the University of Maryland.

Fire engineering baccalaureate programs have a longer history, according to Bryan. The first began in 1903 at the Armour Institute of Technology (now the Illinois Institute of Technology). Today there is a fire engineering program at the University of Maryland and a fire engineering technology program at Oklahoma State University.

The 1960's and 1970's showed significant growth in two-year fire science skill technology and fire administration programs--particularly

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[1] Engineers' Council for Professional Development, 45th Annual Report, Vol. III (New York, N.Y.), Sept. 30, 1977.

[2] J.L. Bryan, A Study of the Relationship of the National Fire Academy to the Fire-Related Education Programs in Colleges and Universities (report prepared under contract to the National Fire Academy, National Fire Prevention and Control Administration, U.S. Department of Commerce), Feb. 28, 1977.

at the community college level--in response to the needs of fire service personnel. These programs are now firmly established. Development over the next two decades will unquestionably focus on baccalaureate and post-baccalaureate opportunities.

Statistical Evidence

As pointed out earlier, growth in fire-related education programs has been predominantly at the two-year associate degree level. Baccalaureate fire science/technology, fire administration, and fire engineering/engineering technology programs are still developing although growth projections indicate a rise in the number of programs offered in these areas.

Table 2.1 shows the growth of two-year fire-related education programs between 1971 and 1975, as identified in a national survey of fire education and training programs undertaken by a consortium of fire service organizations (the "Consortium Survey").[3] The number of states offering two-year fire-related education programs increased from 31 to 40, with a program increase from 135 to 223, or 65 percent. During these four years, 28 states showed an increase in the number of two-year fire-related progra offerings, eight remained at the same level, and four showed a decrease. In 1975, only ten states and the District of Columbia had no two-year fire-related education programs.[4] Most of these states--especially

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[3] International Association of Fire Chiefs, International Association of Fire Fighters, International Society of Fire Service Instructors, and the National Fire Protection Association, Report on a Survey of the Fire Education and Training Programs (The "Consortium Survey") (Boston, Mass.), Dec. 3, 1976.

[4] These ten states were Arkansas, Idaho, Kansas, Louisiana, Montana, North Dakota, South Dakota, Vermont, West Virginia, and Wyoming.

TABLE 2.1. DISTRIBUTION OF 2-YEAR FIRE-RELATED EDUCATION PROGRAMS IN THE UNITED STATES--1971 and 1975

State	No. of Programs 1971(a)	1975(b)
Alabama	2	2
Alaska	1	1
Arizona	2	14
California	51	44
Colorado	4	3
Connecticut	4	2
Delaware	1	2
Florida	4	17
Georgia	-	1
Hawaii	1	2
Illinois	6	18
Indiana	1	2
Iowa	-	2
Kentucky	-	6
Maine	1	1
Maryland	3	4
Massachusetts	10	11
Michigan	5	5
Minnesota	1	1
Mississippi	1	1
Missouri	2	2
Nebraska	-	3
Nevada	2	3
New Hampshire	-	1
New Jersey	1	6
New Mexico	-	1
New York	9	7
North Carolina	2	11
Ohio	3	7
Oklahoma	1	2
Oregon	3	3
Pennsylvania	2	5
Rhode Island	1	2
South Carolina	-	1
Tennessee	-	2

TABLE 2.1. DISTRIBUTION OF 2-YEAR FIRE-RELATED EDUCATION PROGRAMS IN THE UNITED STATES--1971 and 1975 (Continued)

State	No. of Programs 1971(a)	1975(b)
Texas	4	14
Utah	-	1
Virginia	1	2
Washington	4	5
Wisconsin	2	6
Number of States/Number of Programs	31/135	40/223

Sources: (a) D.F. Favreau, A Survey and Historical Developments of Fire Service Education in the United States (International Fire Administration Institute, State University of New York at Albany), 1971.
(b) Consortium Survey, 1976

those with comprehensive community college and university systems and significant urban-metropolitan fire service personnel--are under increasing pressure to establish fire-related education programs.

The Consortium Survey lists 15 institutions with 19 fire-related baccalaureate degree programs in 1975. Of these 19, nine may be classified as fire science/technology, five as fire administration, two as fire engineering, and two as fire engineering technology. One program is unclassified. With the possible exception of five programs (one in forest fire science and the others in engineering and engineering technology) all appear to have developed as articulated curricula serving the graduates of two-year associate degree programs.

Generally, masters degree programs have not yet developed in fire-related education. Some institutions, however, provide corollary graduate opportunities for baccalaureate fire education graduates in such areas as public administration and resource management. Directly

related graduate work in fire education fields will undoubtedly follow the growth and further development of the baccalaureate programs.

Although the Consortium Survey was the latest and most complete to date, some fire-related programs were inadvertently missed. Since then, some new programs have become operational and others have been discontinued. The Committee recognizes the need to update the survey in the near future.

To learn more about accreditation of fire-related academic programs, during 1977 the Advisory Committee sent a questionnaire to a limited number of institutions with fire-related education programs. The Advisory Committee solicited responses on the accreditation and status of fire-related programs, the perceived need or desirability of accreditation, and the possible role of the National Fire Academy in a future accreditation process. Fifty-four responses were received. While the sample is too limited to permit statistical interpretation or definitive conclusions, the results were nonetheless useful in helping the Committee with its deliberations.[5]

Status of Fire-Related Academic Programs

Fire-related academic programs exhibit extreme diversity in structure, content, and educational objectives, particularly in two-year associate degree programs relating to fire science skill technology and fire administration. Such programs generally have a heavy orientation to local or regional needs. Baccalaureate degree programs in fire

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[5]For the questionnaire and a tabulation of results, see Appendix E.

science/technology and in fire administration are relatively few in number, but also show wide diversity. Baccalaureate programs in fire engineering as well as associate and baccalaureate programs in fire engineering technology are too few for general classification, but generally follow the accreditation guidelines of the Engineers' Council for Professional Development (ECPD) in structure and objectives.

Fire Engineering Programs--Baccalaureate Level

There are currently two baccalaureate degree programs with engineering orientation and objectives: the Fire Protection and Safety Engineering program at the Illinois Institute of Technology, and the Fire Protection Engineering program at the University of Maryland; the latter program has accreditation from ECPD.[6]

It should be noted that the quantitative criteria of the ECPD total the equivalent of three years of the normal four-year program. The remaining year is available for the implementation of the individual educational objectives of the students or their institution.

There are no two-year or associate degree programs in engineering recognized as "engineering"; two-year programs at community colleges are considered "pre-engineering" and serve as transfer programs to baccalaureate institutions. The ECPD does not offer an accreditation review program for such pre-engineering curricula.

In view of the general recognition and acceptance of ECPD's program of engineering program accreditation by the public, academic institutions,

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[6] For a summary of the criteria that must be met by a baccalaureate level engineering program for accreditation by the ECPD, see Appendix C.

and licensing/registration bodies, the Advisory Committee does not find a role for the Academy in this area of accreditation. It should be recognized, of course, that fire engineering programs might seek additional accreditation as fire science academic programs if an accreditation program of this type develops.

Fire Engineering Technology Programs--Associate and Baccalaureate Levels

The Consortium Survey identified two associate degree programs related to fire with an engineering technology orientation.[7] The Survey also identified three baccalaureate level engineering technology programs. One of these--at Oklahoma State University--is accredited through the engineering technology accreditation program of the ECPD. In reviewing the program titles reported by the Consortium Survey, it was assumed that a program was not engineering technology in orientation and objective if "engineering" was not included in the title.

ECPD is the recognized and accepted authority for the accreditation of engineering technology programs leading to associate or baccalaureate degrees. This activity is carried out apart from the program of engineering accreditation.[8] The ECPD does not offer accreditation evaluation/review for programs classified as industrial technology. The ECPD differentiates engineering technology and industrial technology as follows:

> Briefly, the differences between educational programs in engineering technology and industrial technology include type of faculty, use of facilities, mathematics

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[7] International Association of Fire Chiefs et al., op. cit.

[8] For a summary of the criteria that must be met by an associate or baccalaureate degree program in engineering technolgoy for accreditation by the ECPD, see Appendix C.

> and science sequence content, and degree of specialization. More faculty members with professional educational backgrounds appear to staff the present industrial technology programs, whereas a larger number with engineering or science backgrounds staff the engineering technology programs.[9]

Again, it should be noted that the ECPD minimum quantitative requirements total less than the normal academic time requirements for the degree to provide adequate time for incorporating into the program individual educational objectives of the students or their institution.

Given the general acceptance and recognition of the ECPD as the responsible authority for the accreditation of associate and baccalaureate degree programs in engineering technology, the Advisory Committee does not find a role for the Academy in this area of accreditation. Fire engineering technology programs, however, might seek additional accreditation as fire technology programs if this type of accreditation program develops.

About half of ECPD's quantitative curricular requirements for engineering programs refer to engineering sciences and design and, for engineering technology, refer to technical sciences and technical specialty courses. It is in these areas that the specialized (programmatic) identification is achieved. The ECPD generally relies on an appropriate organization to delineate what constitutes appropriate course material for specialized identification. For example, for the evaluation of programs in fire protection engineering or fire protection engineering technology, the ECPD probably would call upon the Society of Fire Protection Engineers

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[9] Engineers' Council for Professional Development, op. cit.

(SFPE) and some of its educationally oriented members to delineate the necessary course coverage and content for recognition. Their opinions, however, would be advisory and the final decision would rest with the ECPD. If the program focus were fire protection and safety engineering (or engineering technology), the ECPD would seek expertise in the combined areas of fire protection and safety, possibly utilizing the expertise available in both the SFPE and the American Society of Safety Engineers (ASSE). In brief, the ECPD seeks its expertise from those professional societies identified with the specialized field of engineering or engineering technology.

Fire Science/Technology and Fire Administration/Management Programs--Associate and Baccalaureate Levels

According to the Consortium Survey, there are 226 two-year associate degree programs in fire-related fields and 16 baccalaureate degree programs, excluding those in engineering or engineering technology.[10] Table 2.2 shows the number of associate degree programs with a science, technology, or administration/management orientation and indicates the wide diversity of program titles. More than 95 percent of the programs have either a science or technology focus, about equally divided between these two orientations. Table 2.3 lists the 16 baccalaureate degree programs with a science/technology or administration orientation along with the name of the degree granting institution. Of these 16 programs, six are administration oriented, two have a technology objective, seven are science oriented, and one cannot be definitely classified. The increased emphasis on administration management at the baccalaureate level

[10] International Association of Fire Chiefs et al., op. cit.

is understandable because these programs will frequently build upon a two-year associate degree program in one of the fire-related fields, and it is difficult to structure an administration type program at the associate degree level without first incorporating the basic sciences and the related fire sciences and technologies.

It is not possible to delineate the topical coverage and specific course requirements of a typical associate degree program in fire science, technology, or administration/management. Each seems to have developed to fulfill perceived local needs and information is not generally available on the specific content of individual courses to permit some sort of qualitative evaluation. According to Lucht, one of the major problems with two-year fire-related education programs is the very broad and general nature of the curricula. He recommends the development of specific curricula and options related to career requirements and job related educational objectives.[11]

Although no definitive study has analyzed or evaluated specific course requirements and curricular structure of fire-related academic programs, a brief review of a number of representative curricula reveals a pattern that is similar to that for engineering technology programs.

For two-year associate degree programs, the equivalent of half a year appears to be devoted to the basic sciences--chemistry, mathematics, physics, and life sciences. The equivalent of about one year appears to be structured for the technical and science courses directly relating to the fire service fields. About a quarter of a year is devoted to

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[11] David A. Lucht, "Education for the Fire Marshal -- A National Perspective" (address before the Fire Marshals Association of North America, Cincinnati, Ohio), Nov. 16, 1976.

Table 2.2. ASSOCIATE DEGREE PROGRAMS IN FIRE-RELATED FIELDS

Science	Technology	Administration/Management
Fire Science (100)	Fire Science Technology (57)	Fire Science Management (2)
Fire Protection (3)	Fire Protection Technology (25)	Fire Administration (2)
Fire Science and Safety (2)	Fire Technology (12)	
Fire Science and Prevention (2)		
- - - - - - - - - - - - - - - The following titles represent one program each- - - - - - - - - - - - - - -		
Fire Prevention and Industry	Fire Science and Safety Technology	Fire Science Administration
Fire Prevention and Control	Fire Prevention and Technology	Fire Technology and Administration
Fire Protection and Occupational Safety	Fire Prevention and Safety Technology	Fire Service Administration
Fire and Safety Science	Fire Protection and Safety Technology	Fire Suppression and Management
Fire Safety	Fire and Safety Technology	Fire Command and Administration
Industrial Safety and Security	Fire Service Technology	Public Service
Industrial Safety and Health	Occupational Safety and Health Technology	
Occupational Safety and Protection	Engineering Technology	
	Fire Protection Engineering	
Total = 115	Total = 103	Total = 10

Note: The numbers in parentheses indicate the number of degree programs bearing the indicated title.

Source: Consortium Survey, 1976.

Table 2.3. BACCALAUREATE DEGREE PROGRAMS IN FIRE-RELATED FIELDS

Title of Program	Institution
A. Fire Science/Technology or Fire Administration	
Administration of Safety and Security Services	Jersey City State College
Fire and Industrial Safety Tech.	University of Cincinnati
Fire Prevention and Control	Eastern Kentucky University
Fire Protection Administration	Calif. State Univ. - Los Angeles
Fire Protection and Occupational Safety	Madonna College
Fire Science	John Jay College of Criminal Justice
Fire Science Administration	University of New Haven
Fire Science Technology	University of New Haven
Fire Service Administration	John Jay College of Criminal Justice
Forest Fire Science	Humbolt State University
Independent Study	University of Minnesota
Industrial and Technical Education for Fire Administration	University of South Florida
Public Administration (Fire Service)	Florida Atlantic University
Public Service - Fire Science	Boston State College
Public Services - Fire Science	Central Missouri State Univ.
Urban Studies - Fire Science	University of Maryland
B. Fire Engineering or Engineering Technology	
Engineering Technology (Fire Science Option)	Wichita State University
Fire and Safety Engineering Tech.	University of Cincinnati
Fire Protection and Safety Engineering	Illinois Institute of Technology
Fire Protection and Safety Engineering Technology	Oklahoma State University
Fire Protection Engineering	University of Maryland

Total: 17 Institutions; 21 Baccalaureate Programs

Source: Consortium Survey, 1976.

oral communications, written communications, and humanities and social studies. The remaining time is generally used in electives to support career interests or in support of the institutional objectives for the program. Curricula that are technology oriented devote a significantly larger portion of academic time (compared to science curricula) to the application of the sciences in laboratory instruction and to real life situations. Administration/management-oriented curricula incorporate courses in business and economics, personnel and labor policies, fire service organization, etc.

Because there are relatively few baccalaureate degree programs, generalization is difficult. In addition, most of these programs are structured as a two-year add-on to associate degree programs to reach baccalaureate requirements. In general, the baccalaureate programs add the equivalent of a quarter of a year of basic physical or life sciences and mathematics, frequently including statistics. About half a year is added in the technical sciences and applications directly related to the specific fire education orientation of the program, and about a quarter of a year is added in the area of written communications, oral communications, and humanities and social studies. About one year remains for elective courses to develop the student's career interests and to further the program objectives of the institution.

This description might suggest that there is significant structure and format in the associate and baccalaureate fire-related academic programs. However, Lucht points out that there is often insufficient depth in the curricula in the technical sciences and their application--

areas nominally considered to be the heart of the program.[12] The professional requirements for fire protection are unquestionably broad and diverse; an academic program--particularly at the associate degree level--is hard pressed to encompass the field to a significant extent within the given time. The result is often a broad program, lacking in depth and substance. This diversity and apparent lack of definitive orientation has side effects for students seeking a fire-related academic education with personal career objectives. Students have difficulty in selecting an appropriate program because there is a lack of comparative information on program standards; students also face difficulty when transferring academic credits.

Recommendations

In view of the above factors, the Advisory Committee recommends the establishment of a review and evaluation process directed to the accreditation of fire-related education programs in fire science, fire technology, and fire administration/management. The Committee also recommends that the accreditation program follow the general pattern of the programmatic/specialized peer accreditation process used for academic programs with a professional career orientation and objective. Any review and evaluation effort should look both at the contemporary scene and to the future for greater impact on fire losses. An assessment of the types and depth of courses that prepare students for various careers in the fire service is a necessary and integral part of the design and subsequent implementation of an accreditation process.

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[12] Ibid.

The Accreditation Process. The recommended accreditation program should be focused on those programs of fire science, fire technology, and fire administration/management that have a well defined and specific orientation to fire-related career objectives. Preparing students for a specific career marketplace is what differentiates specialized education programs from those of a general nature. Bryan points out that most fire science programs are initiated by community colleges in response to a local need, particularly to serve paid fire service personnel on a part-time student basis.[13] Fire technology programs are often oriented to the fire protection and service aspects of industry, government, and fire insurance as well as directly related to fire education requirements of the public fire service. Fire administration/management programs are oriented to fire service personnel who want to enter the administrative or management ranks of the public fire service. Thus, the accreditation process must serve a specialized cadre of personnel with definite career objectives who are seeking specialized education.

An accreditation process designed to recognize those fire science/technology and fire administration/management academic programs meeting well defined minimum criteria for such recognition would:

- Serve the public interest.
- Provide a basis for interinstitutional comparability through certification that program standards have been met.
- Assist prospective students in identifying programs meeting professional standards of acceptance.

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[13] Bryan, op. cit.

- Assist institutions in determining the interinstitutional acceptability of transfer credits.
- Assist in determining eligibility for private and/or public financial assistance by identifying institutional programs meeting the accreditation standards of the profession.
- Create goals and objectives for self evaluation and improvement by the institution and its faculty.
- Serve--on a long range basis--to establish professional standards for licensure and/or certification.

The Role of the Academy. In considering the need for an accreditation process for fire science/technology and fire administration academic programs, the Advisory Committee also considered the form and format most suitable to such an accreditation activity and the possible role the Academy might play in the process.

The most desirable and appropriate type of accreditation process would be programmatic or specialized accreditation as currently used in a number of career-oriented fields. This is a peer group accreditation process. In its evaluation, review, and decision functions, the accreditation organization would involve academics and professionals in fire-related fields.[14]

The Advisory Committee suggests that a new, independent organizational entity be formed to carry out the recommended program of accreditation. The Committee believes that a direct role by the Academy would be inappropriate because of its governmental role and the possible conflict arising from the Academy's financial assistance program.

The Academy, however, should play a lead role in establishing an appropriate accreditation organization. The Academy should help this

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[14] For a review of the peer group and its relation to the accreditation process, see Appendix B.

organization to establish its charter and assist it through the early stages of determining its operational format, establishing accreditation criteria and standards, and developing a financial mechanism to support the accreditation process. The Academy might consider creating a task force specifically charged with drawing up a detailed plan for the accreditation activity, including those facets enumerated above. The task force should draw upon appropriate personnel representing: academics, practicing professionals, and representatives of appropriate organizations in the fire community.

CHAPTER 3

ACCREDITATION OF FIRE SERVICE TRAINING

The Advisory Committee defines training as: "The teaching, drill, or discipline necessary for the mastering of a particular skill or group of skills. Training is associated with vocational skills as the process or experience of making one proficient or qualified to perform certain actions or tasks." Types of fire service training programs include Federal, military, regional, state, local, and industrial programs.

Training for public fire services includes both paid and volunteer personnel, and the Committee makes no distinction between such categories insofar as requirements for training. It is recognized, however, that there may be need for differentiation in the training delivery mechanism of each category.

Federal. Many Federal Government installations are protected by federally employed firefighters using federally owned equipment or, in other cases, by a variety of contractual arrangements. The government provides orientation and some in-house training. Additional training is obtained by cooperation with outside public fire departments and by participation in state training programs.

A number of Federal agencies are also directly involved in fire training. For example, the Departments of the Interior and Agriculture are involved in wildland fire protection training; the General Services Administration conducts fire prevention training for occupants of buildings used by the Federal Government; and the Departments of Transportation and Health, Education, and Welfare are involved in Emergency Medical Services training.

Military. All branches of the armed services provide fire service training in various areas of responsibility--shipboard, structural, crash and crash-rescue, to cite some examples. Training for military fire protection is conducted at facilities both home and abroad. There has been a shift toward the increased use of civilian firefighters on many installations although specialist training for shipboard or crash-rescue firefighting is conducted.

Regional. Fire service training at the regional level is limited. The only documentation on these programs is found in the Region II and Region X Reports dealing primarily with educational needs of the fire service.[1,2]

Examples of the regional approach are the annual Lakes Regional Mutual Aid Fire School in New Hampshire, with participation from Vermont and Massachusetts, and the Tri-State Training Seminars, with participation from fire departments along the West Virginia, Pennsylvania, and Ohio borders.

Regions within a state often use shared training facilities. An example is the combined program of the cities of Huntington Beach, Fountain Valley, Seal Beach, and Westminster in California. The Academy is now funding a study of the regional approach to training and education by the communities surrounding Charlotte, North Carolina.

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[1] National Academy for Fire Prevention and Control, National Fire Prevention and Control Administration, U.S. Department of Commerce, Final Report: Region II Fire Service Education Needs Analysis Project (Washington, D.C.), January 1977; and Final Report: Region X Fire Service Education Needs Analysis Project (Washington, D.C.), April 1977.

[2] States in Region II: New York, New Jersey
States in Region X: Washington, Oregon, Idaho

State. Many, but not all, states have a full-time director of fire training. However, the quality and quantity of training opportunities vary considerably. The programs available differ in their organizational designs. Some are part of the State Fire Marshal's responsibility; some are within an agency of the state department of education; some are associated with the state university as an extension service; and others are part of a state fire commission. Many programs are tax supported while others, in an attempt to fill a void, are carried out by the state firemen's association with costs borne by the participants.

Probably no state has an ongoing program that meets the needs of every member of the fire service and certainly no state trains every fire service member every year. Most state programs work with the local programs to some degree.

Local. Most fire service training--including basic entry level, skills maintenance, or specialist training--is conducted at the local level. However, the quality ranges from truly outstanding and excellent to weak or nonexistent. The Consortium Survey points to regional differences in various aspects of training such that definitive evaluations or comparisons are not possible.[3]

Many local level (city, town, county, district, or private) training programs cooperate with a state training effort. There are a number of departments without an officer designated to conduct or monitor training. Frequently, the training officer or drillmaster has

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[3] International Association of Fire Chiefs, International Association of Fire Fighters, International Society of Fire Service Instructors, National Fire Protection Association, Report on a Survey of the Fire Education and Training Programs (The "Consortium Survey") (Boston, Mass.), Dec. 3, 1976.

a limited budget or staff and is able only to concentrate on the basic elements of training. Many departments that provide training do not maintain adequate records.

Industrial. Industrial training is another important aspect of the fire protection effort. Many large plants use either full-time personnel for fire protection or employ a part-time fire brigade. Members of such brigades usually have other primary responsibilities and meet on a regular basis for training.

Training programs for factory or plant fire brigades vary widely in scope and excellence. Training may take place both during and after working hours.

Many states, localities, and non-public fire training organizations use nationally recognized training manuals with modifications to fit local requirements. A continual problem facing all levels of training effort is the need to keep programs current, interesting, and challenging.

Statistical Evidence

The Consortium Survey gathered statistical information relating to the incidence, funding, and type of fire service training programs available to fire service personnel throughout the United States.[4] A statistical analysis of this information has been prepared by the Department of Statistics at the University of Wisconsin (Madison) under contract from the NFPCA.[5]

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[4] Ibid.

[5] Department of Statistics, University of Wisconsin (Madison), Statistical Analysis of the National Survey of Fire Training and Education Programs (report prepared under contract to the National Fire Prevention and Control Administration, U.S. Department of Commerce, Washington, D.C.), Nov. 15, 1977

The Consortium used three questionnaires to (1) contact all states and territories for information from state training directors; (2) survey all colleges and universities thought to be offering fire service education and training; and (3) contact 3,360 fire departments. For purposes of statistical analysis, the United States was divided into four geographic regions (north central, northeast, south, and west) in accord with United States Census Bureau definitions.[6] Fire departments were classified as volunteer (if more than 75 percent of the personnel were volunteers), fully paid (if more than 75 percent of the personnel were full-time employees), and combination (all other departments).

Table 3.1 summarizes information on the training programs of the 2,727 fire departments that responded to the survey.[7] The Survey showed, in general, that volunteer fire departments have fewer training programs, fewer training facilities, and lower funding for training than either paid or combination fire departments. It should also be noted that only 14 percent of volunteer fire departments require a high school diploma for entry to the fire service. This would seem to indicate the necessity for significant, high quality fire service training programs.

When the survey results are analyzed on a regional basis, the west generally leads in favorable responses to a significant number of important areas of fire service training. The south ranked highest in the number of States (70 percent) with some training facility in each of a

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[6] For a discussion of the results of the survey of colleges and universities, see Chapter 2.

[7] This number represents slightly more than ten percent of all United States fire departments and is an approximately 81 percent return of the questionnaires, which were mailed to a statistical sample of fire departments of all sizes and types.

significant number of fire training areas; the south also ranked highest in the number of states (73 percent) with fire prevention training programs.

Table 3.1. STATISTICAL RESUME OF FIRE DEPARTMENT SURVEY REGARDING FIRE SERVICE TRAINING

Survey Question	Percentage Response			
	Paid	Vol.	Comb.	All
1. Percentage Requiring High-School Diploma for Entrance:	87	14	60	45
2. Percentage Reporting Some Form of Recruit Training:	87	61	68	70
3. Percentage Requiring "Certification" of Training Instructors:	73	59	65	65
4. Percentage Having No Training Personnel:	17	43	28	33
5. Percentage With Own Training Facilities:	55	21	25	31

Source: Consortium Survey, 1976.

Only two states, Rhode Island and New Jersey, reported having no training facilities of any kind. Twenty-nine states reported training programs of some sort in operation. Twenty states have specialist training programs, 18 hold specialist workshops, and 14 include arson detection within their fire prevention programs. Other significant responses from the state directors of fire training were as follows:

- Forty-five states reported some authority for fire service training; 16 reported having informal training programs; and 20 reported a master plan for fire fighter training.
- Forty-two states reported having some full-time training personnel; and 38 reported having some part-time personnel.

- Nine states reported no certification requirements for training personnel.

- Of 20 program elements (Table 3.3) relevant to basic recruit training, only eight are used in more than 33 states and six are used in fewer than 24 states. Only 32 states provided certification of some sort upon completion of their training program.

- Of eight specialist training elements (Table 3.3), only pump operator (26 states) and instructor (28 states) training are offered by more than half the states.

- Slightly more than one-fourth of the states responding offer training in tactics (15 states), pre-fire planning (14 states), strategy (12 states), and administrative training for company officers (13 states). Only three states offer specific training in management skills.

- Sixteen to 19 states offer special training in hazardous materials, liquefied petroleum gas, flammable liquids, vehicle extraction, arson detection, and principles of instruction.

- Although 29 states report having fire prevention training programs, none includes all types of training; 12 have no special training for recruits, 22 offer no officer development training, 28 have no administrative training, 36 offer no training in management skills, and 12 offer no special workshops.

- Life safety principles, use of codes and standards, extinguishing and alarm systems, inspection techniques, and arson investigation are the only formal fire prevention inspection training programs available in more than 14 states responding, but none of these programs is available in as many as 20 states.

The Statistical Analysis, however, points out significant types of training programs for the career development and performance improvement of fire service personnel. Table 3.2 illustrates the percentage of fire departments surveyed that indicated they had no fire prevention training programs, no special training programs, no inservice training programs, no specialist training programs, or no recruit training programs.

Table 3.2. STATISTICAL RESUME OF FIRE SERVICE TRAINING PROGRAM DEFICIENCIES

Survey Question	Percentage Response			
	Paid	Vol.	Comb.	All
Percentage Reporting Having No:				
1. Fire Prevention Training Program	72	93	82	85
2. Special Training Program Sessions	29	51	42	43
3. Inservice Training Programs	41	64	56	56
4. Specialist Training Programs	27	50	40	42
5. Recruit Training Programs	58	75	70	69

Source: Statistical Analysis of the National Survey of Fire Education and Training Programs, 1977.

In the area of fire prevention, more than 90 percent of all departments in the northeast and north central regions indicated they lack training programs. Even in the fully paid departments of the south and west, the fire prevention training program reaches less than three departments out of ten. Overall, the west and south provided training in more areas and in a higher percentage of departments than in the northeast and north central regions.

Considering the importance of training to the fire service recruit, it is striking that 69 percent of all fire departments do not have a training program although 70 percent (Table 3.1) indicated the recruit received "some form" of training. This would indicate that recruit training is not programmatically structured where it does occur. Only 14 percent (paid--30 percent; volunteer--6 percent; combination--11

percent) of the departments have recruit training before assignment; 43 percent (paid--38 percent; volunteer--43 percent; combination--48 percent) have only on-the-job training for recruits; and 43 percent (paid--32 percent; volunteer--51 percent; combination--41 percent) have both preassignment and on-the-job training.

Specialist training programs are given by more departments (approximately 57 percent) than any other type, followed by in-service training given by 44 percent of the departments reporting.

The Consortium Survey also sought responses to the question of training needs from each segment of those contacted. The results were as follows:

- Fire departments: One in five indicated a need for training facilities, increased training equipment, and additional specialist skills training.
- State training directors: 74 percent indicated a need for training curriculum development assistance, and 45 percent indicated a need for assistance in facility development or improvement.
- Colleges/universities: 23 percent of the institutions reporting indicated a need for laboratory facilities and 12 percent reported a need for manipulative skills training facilities.

If nothing more, the statistics illustrate the extreme variability in the type of training programs available--or the lack thereof--to fire service personnel, paid or volunteer, for career development and performance improvement. Regional differences and urban vs. rural needs compound the complexity of providing training programs for the continued improvement and advancement of fire service personnel.

Quality of Programs

Considering the above statistics on the incidence and type of fire service training programs in the United States, is it not surprising to

find little consensus regarding the requisite standards for a particular training activity or a barometer for standards quality measurement. The International Society of Fire Service Instructors described the situation as follows:

> Each of the fifty states, with the exception of New Jersey and Hawaii, has some identifiable form of state-level program for fire service training and education. Yet the specifics of the organizational concept and the identifiable role vary so widely from jurisdiction to jurisdiction that these programs defy generalization. Organization and role range from the most simple and clear to the most comprehensive and complex, touching on countless combinations between. There are many distinct types of organizations and roles, some working well, others not....
>
> Basically, across the country, the responsibilities assigned to the state fire service training and education programs range from the very narrow to very broad in scope. Narrow scope operations, for example, incorporate training for fire service personnel only in manipulative skill areas and other basic courses for fire service personnel.
>
> Such programs generally encompass the following areas:
>
> a. Within most states, basic manipulative courses for volunteer and paid fire departments exist.
>
> b. Within some states, basic courses for specialty ranks, such as fire inspector, fire and arson investigator, driver/operator, alarm dispatcher, instructor and other such areas, exist.
>
> c. Within other states, industrial, institutional, and public education programs exist.
>
> d. Within a few states, courses for upper fire department ranks, including such areas as officer training for management and supervision, exist. [8]

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[8] International Society of Fire Service Instructors, Recommendation on the Relationship between the NFPCA and the State Level Fire Community (report prepared under contract to the National Fire Prevention and Control Administration, U.S. Department of Commerce), Jan. 3, 1977.

The Consortium Survey also identified instructional elements most generally found in various training courses and programs. These are summarized in Table 3.3. As pointed out in the statistical analysis, each training program incorporates those topical elements most suited to the needs and scope of its fire service personnel audience. Courses and training covering the same topical area will vary greatly in scope of coverage, depth of topical treatment, and achievement requirements placed on the student audience. The Consortium Survey indicated that only 8.2 percent of fire departments (paid--14 percent; volunteer--5.3 percent; combination--7.7 percent) have arrangements to provide college credit for their training programs.

The National Professional Qualifications System (NPQS), established by the Joint Council of National Fire Service Organizations, is the first organized effort to develop standards for use as a basis for nationally standardized examinations by authorized agencies, and the standards are available for adoption by Federal, state, and local authorities.[9] Currently, there are six minimum standards of professional competence:

1. Firefighters.
2. Fire inspectors, investigators, and public education officers.
3. Fire service instructors.
4. Fire service officers.
5. Apparatus drivers/operators.
6. Crash/rescue firefighters.

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[9] Joint Council of Fire Service Organizations, National Professional Qualifications System (Washington, D.C.), Nov. 30, 1976.

Table 3.3. TOPICAL COVERAGE ELEMENTS IN FIRE SERVICE TRAINING PROGRAMS

Basic Recruit Training

- Fire Behavior
- Forcible Entry and Tools
- Rescue
- Breathing Apparatus
- Hose Nozzles and Appliances
- Fire Streams
- Sprinklers
- Pump Operators
- Water Supplies
- Ropes and Knots
- Ventilation
- Ladder Evacuation
- Aerial Ladder Operators
- Portable Fire Extinguishers
- Fire Alarm and Communicators
- Safety
- Fire Prevention
- Fire Inspection
- Rules and Regulations
- Others

Specialist Training Programs

- Pump Operator
- Aerial Apparatus Operator
- Instructor
- Airport Firefighter
- Fire and Arson Investigator
- Dispatcher
- Emergency Medical Technician
- Paramedic
- Others

Officer Development Programs

Fire Ground Command	Administration	Management Skills
Tactics	Company Officer	Budget
Strategy	Senior Officer	Finance
Communications	Staff Officer	Personnel
Water Supply	Other	Purchasing
Logistics		Other
Pre-Fire Planning		
Other		

Special Workshops and Seminars

- Driver Training
- Hazardous Materials
- Liquefied Petroleum Gas
- Flammable Liquids
- Radiation Detection and Control
- Cardio-Pulmonary Resuscitation
- Vehicle Extraction
- High Rise Firefighting
- Maritime and Shipboard Firefighting
- Arson Detection
- Principles of Instruction
- Other

Table 3.3. TOPICAL COVERAGE ELEMENTS IN FIRE SERVICE TRAINING PROGRAMS (Continued)

Formal Fire Inspection Training Program

Dynamics of Fire	Heating, Ventilation, and Air Conditioning Systems
Principles of Electricity	Extinguishing and Alarm Systems
Engineering Principles	Legislative Procedures
Plan Reading	Inspection Techniques
Technical Report Training	Arson Investigation
Life Safety Principles	Court Appearance Procedures
Building Construction (Advanced)	Public Speaking and Public Relations
Special Hazards (High Risk)	
Codes and Standards (Use)	

Source: Consortium Survey, 1976

The committees do not determine, or become involved in, actual certification procedures or direct implementation of the standards.

The NPQS standards are but one step in the total process for the development of fire service training systems, or systems evaluation, on a national scale. To ensure public confidence and acceptance by the fire service, such standards must be merged into a total training system, with a mechanism for continuing system evaluation and quality control.

Summary and Recommendations

In summary, several factors stand out in considering the statistical evidence relating to fire service training programs and the general standards and quality related to such activities:

- Fire service training is the most important single factor relating to the capabilities and career development of fire service personnel (paid or volunteer). It is equally important to the public need and concern to improve fire prevention services and reduce fire losses.
- Although there seems general agreement on the desirable elements of training programs, the implementation, use, and character of such programs--nationally, regionally, by states or local communities--can best be characterized as random with an extreme variability of content, type, and quality.

- The NPQS standards provide an excellent and essential ingredient in the development of a total training system on a national scale. The use of such standards is to be encouraged; yet to be effective in the total system concept, there is a need for a concomitant development of training program elements, procedures, and characteristics (program standards and criteria) to serve as a fundamental basis for fire service personnel desiring such certification and/or recognition embodied by the Pro Board standards. The development of such training programs and the means for system evaluation and quality control would also serve to open the way for lateral entry to the various fire service job classifications, based on education and training, in addition to the singular mode of vertical advancement now generally practiced.

In view of these factors, the Advisory Committee discussed whether an accreditation procedure was needed and in the best interest of the fire service profession and the public. The discussions considered all aspects of fire service training from recruit entry to continuing training and career advancement, the types of fire service training programs and courses, and the wide range of fire training delivery systems. It was agreed that accreditation, as applied within the academic system, is inappropriate for fire service training programs for a variety of reasons. Foremost among these were: the extremely large number of fire service organizational entities having fire training responsibilities; the fact that fire service training requirements are uniquely associated with a local situation in terms of need and objective; and the wide diversity of fire service job classifications, each requiring unique training preparation and accomplishment.

At the same time, the Advisory Committee recognizes that some form of evaluation and recognition of training programs is needed and desirable for three fundamental reasons: (1) to assure that a given training program content is consistent with and accomplishes its objectives;

(2) to assure that the mode of delivery and the quality of instruction is of a high order consistent with the needs of modern fire service training; and (3) to assure that training programs meet the vocational or avocational needs of participants and further fire service career development.

The Advisory Committee also agreed that:

- The evaluation process should be directed at:
  - (a) the specific program content and objectives;
  - (b) the quality of instruction; and
  - (c) the facilities utilized.
- The standards used as a basis for evaluation should be developed by independent peer groups.
- Programs should provide some means by which participants are given tangible recognition for their successful achievement.
- Participation in the evaluation process should be voluntary.

The Advisory Committee recognizes that there are significant differences in the requirements for modern training programs organized on a State basis, those designed for large municipal and urban entities, and those oriented to small, rural fire service organizations. The proposed evaluation process should be structured to recognize such differences and, at the same time, speak to the appropriate standards for each level and type of fire service activity within such organizational programs.

A major problem that any evaluation process for training programs would encounter is the current lack of a measurement of training effort that is universally used and accepted, such as the semester (or quarter) credit hour common to academic education programs. This standard is important if participants in fire service training programs are to receive tangible recognition for achievement.

A relatively recent innovation by some educational and vocational institutions and professional societies to provide a means of measurement for nonacademic continuing education is the Continuing Education Unit (CEU).[10] According to Enell, the CEU is defined as:

> Ten contact hours of participation in an organized continuing education activity under responsible sponsorship, capable direction, and qualified instruction.[11]

The CEU appears to be well suited as a supplement to the measurement needs of individual training activities within a total training program. The CEU could afford a numerical means of measurement that would be readily identifiable and, at the same time, maintain a discrete difference from the semester or quarter credit hour used for academic education. This does not preclude a training program from having both CEU's and credit hours within its total structure. But use of the CEU would allow separate identification of training and educational courses. The use of such a measurement for fire service training activities could be of significant value in providing a basis for interprogram experience transfer as well as serving as a foundation for an accreditation process. While the CEU is not, in itself, envisioned as tangible recognition for achievement, it could serve as a valuable adjunct.

In addressing the need for an evaluation process for fire service related training programs, the Advisory Committee also considered the form and format most suitable to such an activity and the possible role for the National Fire Academy.

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[10] For more information on CEU's, see Appendix J.

[11] John W. Enell, "The CEU Comes of Age," Engineering Education, Vol. 65, November 1975, pp. 147-156.

Although an accreditation process is not recommended, the proposed evaluation program can benefit from those elements of the accreditation system adaptable to the evaluation of fire training programs: specifically, the use of peer groups for the design and implementation of such a system.[12] For fire service training, the peer group would include persons with recognized experience and expertise in the appropriate areas.

The major problems faced by such an evaluation system are the initiative, funds, and advisory expertise needed in the early design stages and subsequent implementation. The system also must gain acceptance by organizations that can usefully take part in the program. The National Fire Academy can provide an effective and valuable service in these areas. By virtue of its charge under Public Law 93-498 (Section 7), the Academy appears uniquely qualified (1) to provide the initiative and funds to organize appropriate peer groups to consider the design and implementation of such an evaluation system, (2) to serve in a resource and advisory capacity to the peer groups, and (3) to assist in gaining the support of the concerned fire service training organizations.

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[12] For a review of the peer group and its relation to the accreditation process, see Appendix B.

CHAPTER 4

ACCREDITATION OF THE NATIONAL FIRE ACADEMY

A basic element of the charge to the Advisory Committee was to examine whether the Academy itself should seek accreditation as part of its long range goals. In carrying out this charge, the Committee reviewed the types of accreditation available and considered the need and justification for accreditation within the Academy's overall mission.

As the Academy is still in its formative stages, the Advisory Committee relied heavily upon the Academy's preliminary planning reports. Table 4.1 illustrates the Academy's general strategy for developing a training and education system to further the professional development of fire service personnel and others--such as architects, architect-educators, and urban planners--requiring fire prevention and control knowledge in their professional activities. Figure 4.A illustrates how the Academy plans to accomplish these objectives.

The Academy has three major organizational divisions: Operations, Planning, and Evaluation; Education and Training; and Assistance (see Figure 4.B). Figure 4.C shows the developing organizational pattern within the Education and Training Division and some of the emerging areas of activity related to education and training.

In addition to conducting its own courses, the Academy is authorized to support fire service education and training programs that are conducted under outside auspices. This latter aspect is important if the Academy is to provide national leadership in fire education and training.

Table 4.1. THE MAJOR TRAINING AND DEVELOPMENT STRATEGIES OF THE NATIONAL FIRE ACADEMY

Needed to create a training and education system capable of overcoming the deficiencies in the fire service field are:

- Management Development
- Technical Development
- Personnel Development
- Career Development

- Improved Service
- Improved Safety
- Improved Teamwork
- Improved Management
- Improved Fire Personnel
- Improved Productivity

Although its history is brief, the Academy already is carrying out definitive education and training activities. These point the way to continuing and future developments. In the area of curricula development, the Academy is focusing on two features:

- The development of courses and course materials related to fire safety topics of national priority.
- The development of model curricula, training programs, and auxiliary educational aids.

A total of 26 courses are listed in the five-year plan of the Academy. Some have gone through a formal development process and are considered complete; some have proceeded to testing and evaluation; and others are in the planning stage. These courses provide instruction:

- In professional development for senior and junior officers.
- In selected fire service specialties, such as fire inspector, arson investigator, fire instructor, public education specialist, etc.

Figure 4.A. STRATEGY OF THE NATIONAL FIRE ACADEMY

Figure 4.B. GENERAL SCHEMATIC REPRESENTATION OF THE NATIONAL FIRE ACADEMY

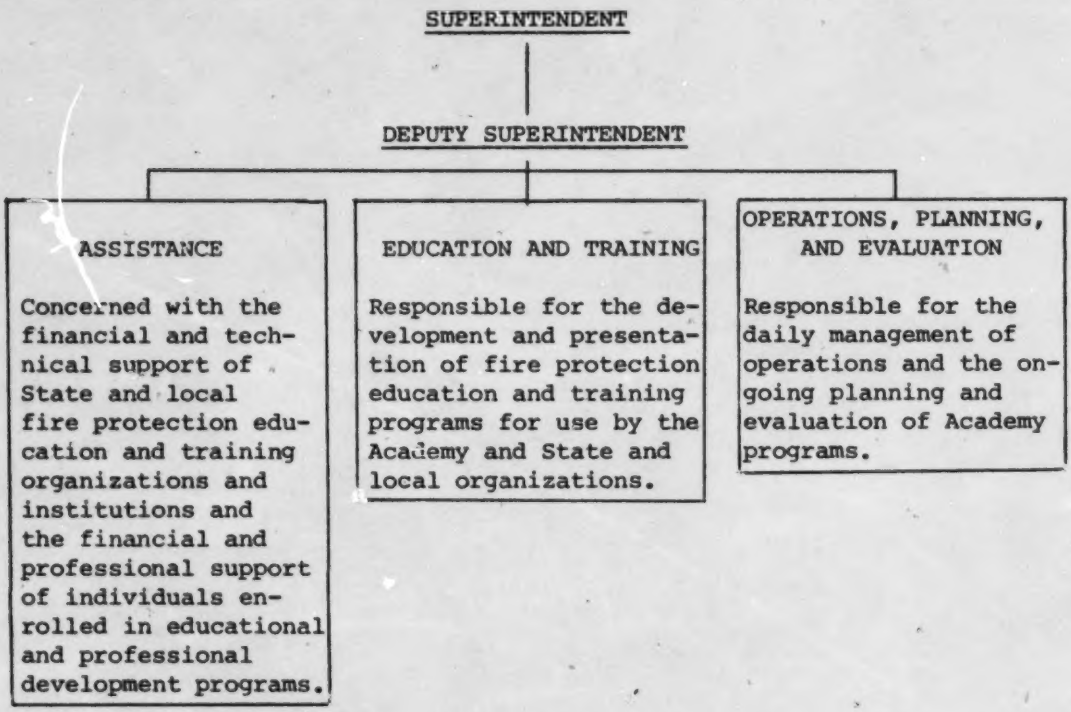
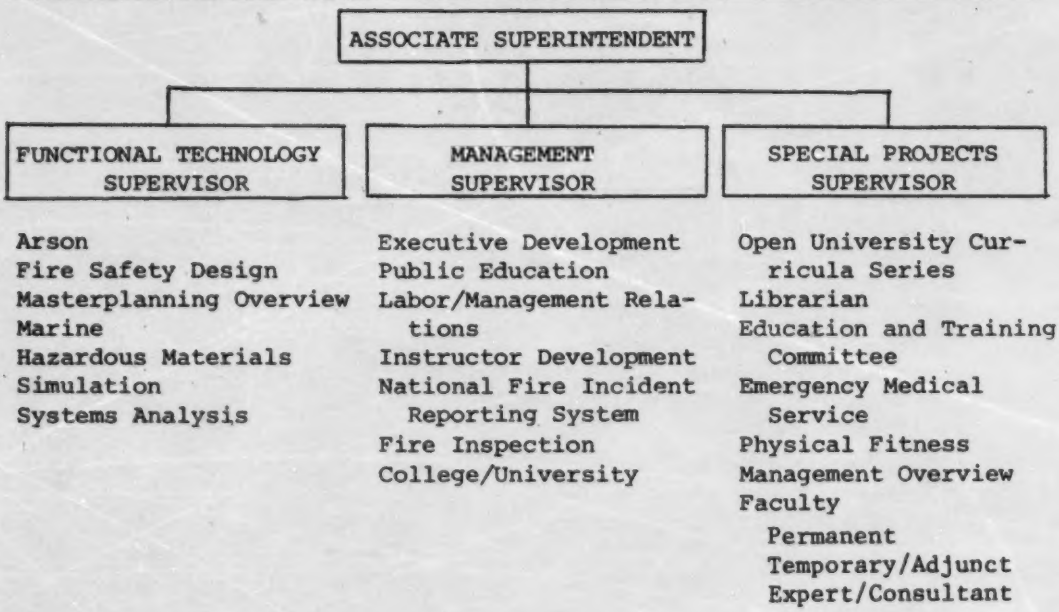

SUPERINTENDENT
DEPUTY SUPERINTENDENT
ASSISTANCE
Concerned with the financial and technical support of State and local fire protection education and training organizations and institutions and the financial and professional support of individuals enrolled in educational and professional development programs.
EDUCATION AND TRAINING
Responsible for the development and presentation of fire protection education and training programs for use by the Academy and State and local organizations.
OPERATIONS, PLANNING, AND EVALUATION
Responsible for the daily management of operations and the ongoing planning and evaluation of Academy programs.

Figure 4.C. SCHEMATIC REPRESENTATION OF THE EDUCATION AND TRAINING DIVISION



- In specialized areas of concern within the fire service, such as marine fire prevention and control, aircraft fire control and crash rescue, and emergency medical services.

- For professionals outside the fire service who are concerned with fire prevention and control.

The next five years will be critical for the Academy. During this period, the Academy will be finalizing and implementing its specific course and curricular structure, recruiting faculty, and (most importantly) beginning to teach a student population. At the same time, the Academy will be providing assistance to fire-related education and training programs nationwide. By 1983, the Academy should have made major strides toward becoming a recognized academic and service institution.

Justification for Accreditation

To an institution engaged in academic education or vocational training, accreditation is a form of recognition and acceptance. Accreditation of the Academy and the requirements for maintaining accreditation would serve to:

- Certify that the Academy has met established standards for an academic institution.

- Assist prospective students by guaranteeing that the Academy maintains certain standards of academic quality.

- Assist other colleges and universities in determining the acceptability of transfer credits from the Academy to their degree or certificate programs.

- Identify the Academy to public agencies and private corporations as meeting identifiable institutional standards of quality for funding purposes.

- Afford the Academy protection against internal or external pressures bearing on the quality of its programs.

- Stimulate the creation of goals and objectives for self-evaluation and program development within the Academy, involving the total spectrum of faculty and staff.
- Provide a stimulus for the general improvement of educational standards.

In brief, accreditation of the National Fire Academy appears to offer advantages to the growth, development, and acceptance of the Academy as an academic institution. Accreditation also would enhance and assist in the acceptance and recognition of the leadership role of the Academy in fire service education and fire service training in general.

Types of Accreditation

As pointed out earlier, two forms of accreditation currently are used in the United States. These are institutional (or regional) accreditation and specialized (or programmatic) accreditation. There is a third approach frequently used by developing, proprietary education, and vocational training institutions, and the education/training entities of some government agencies; this is "recognition through affiliation." While not accreditation, it does provide a form of acceptance.

Institutional Accreditation. The Middle States Association of Colleges and Universities was used to study institutional accreditation because the initial proposed location for the National Fire Academy was the Marjorie Webster Junior College site in Washington, D.C. The process of accreditation review by a regional association involves six basic features:[1]

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[1] Middle States Association of Colleges and Schools, Candidacy for Accreditation with the Commission on Higher Education of the Middle States Association of Colleges and Schools (Philadelphia, Pa.) 1978. This document is reprinted as Appendix D.

1. The standards or criteria upon which the association reaches its accreditation decision.

2. A self-study document prepared by the institution describing its educational goals and objectives and speaking specifically to the aforementioned standards of criteria.

3. An on-site evaluation visit by a team representing the accrediting association.

4. The mechanism within the association for reaching the final accreditation decision. This includes an opportunity for the institution to review and respond to the report prepared by the visiting team.

5. Notification to the institution of the accreditation decision. If the action is to accredit, this includes the time duration for the period of accreditation.

6. If the action is to accredit, the association includes the institution in its annual official listing of institutions meeting its standards.

Institutional accreditation is a lengthy process that can consume one or two years. The normal term of accreditation by a regional association is ten years. Although the institutional accreditation process does not evaluate the specific quality of individual degree programs and courses--concentrating instead upon the overall ability of the institution to meet its educational goals and objectives--these aspects are a part of the overall evaluation.

Regional accrediting associations also have a form of recognition as a prelude to eventual institutional accreditation, called "Candidate for Accreditation Status."[2] As stated by the Middle States Association:

> Candidate for Accreditation Status offers institutions the opportunity to establish an initial, but

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[2]For a description of the procedures and requirements of the Middle States Association for Candidate Status, see Appendix D.

> formal and publicly recognized, relationship with a regional accrediting commission. A status of affiliation which indicates that an institution is progressing toward (although not assured of) accreditation, the candidate classification is designed for postsecondary institutions which may or may not be fully operative. In either case the institution must provide evidence of sound planning, have the resources to implement its plans, and appear to have the potential for attaining its goals within a reasonable time.[3]

A review of the Middle States requirements illustrates the magnitude of effort, planning, and development confronting the Academy in seeking Candidate Status and, eventually, institutional accreditation. Candidate Status may be maintained for a maximum period of six years. Accordingly, the Academy must envision sufficient development to meet institutional accreditation requirements within six years even before seeking Candidate Status.

The Academy could meet the eligibility requirements for Candidate Status within a reasonable time span; the major problem is the planning and development needed to prepare the Candidate for Accreditation Planning Document--the institutional self-study--that is key to achieving Candidate Status. This self-study document must speak definitively to the following:

- Institutional purpose and objectives.
- Constituency served and enrollment projections.
- Procedures for evaluating institutional effectiveness.
- Current and projected educational programs.
- Financial base and projected funding.

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[3]Middle States Association of Colleges and Schools, op. cit.

- Institutional personnel--faculty and support staff.
- Physical plant and physical resources.
- Library and learning resources.
- Institutional organization decision procedures.
- Current and anticipated problems relating to growth and development.

Each topic must be covered currently and for a projected time span of six years.

Given the current development of the Academy and its educational programs, institutional accreditation--or Candidate Status--appears not to be feasible in the immediate future, but should not be excluded as a possibility in the long term.

Specialized Accreditation. This type of accreditation, as it exists in the fields of law, medicine, engineering, business, and a host of occupational specialties and professions, is concerned with the quality of the educational programs preparing students for the practice of the specific profession. Agencies and organizations concerned with specialized accreditation frequently require institutional accreditation as a prerequisite for specialized accreditation evaluation.

Currently there is no accrediting agency or organization serving the fire service education or fire service training fields other than fire engineering and fire engineering technology degree programs currently accredited by the ECPD. The Academy does not now plan to develop an emphasis in engineering or engineering technology; it thus seems premature to consider a specialized accreditation approach.

Recognition Through Affiliation. This is a cooperative process whereby an institution seeks formal contractual affiliation with

accredited colleges and universities involving interinstitutional transfer of courses and course credits and perhaps faculty interchange as well.

There are two affiliation alternatives possible:

1. Affiliation arrangements could be sought with a single, accredited institution.

2. Affiliation arrangements could be sought with a number of accredited institutions on a wide geographic basis.

Affiliation arrangements would have considerable advantages for the Academy: (1) such arrangements could be initiated almost immediately, and could proceed concurrently with the development and implementation of the short- and long-range academic plans of the Academy; (2) Academy courses, delivered at the Academy, would be accepted by the affiliated college or university toward one or more of its degree programs; and (3) courses taken at the affiliated college or university could be integrated into the academic/training programs of the Academy.

Acceptance of Academy courses to fulfill degree requirements at affiliated institutions would help students to transfer credits to nonaffiliated, but accredited, institutions. This would accelerate acceptance of the Academy and eliminate wasteful duplication of facilities and programs.

The close association with affiliated institutions would afford the Academy an interim recognition while proceeding with its development and planning for possible institutional accreditation. The association would also be of considerable aid to the Academy in that these affiliated institutions would be a valuable source of information regarding preparation for the accreditation evaluation process.

Affiliation arrangements could serve to stimulate interinstitution faculty exchanges and interaction. This could be valuable to the growth and development of the Academy.

APPENDIX A

GLOSSARY: Working Definitions Developed by the Advisory Committee on Fire Training and Education, National Academy for Fire Prevention and Control

Academy:

An institution offering instruction or training in a specialized field.

Accreditation:

The process by which an agency or organization evaluates and recognizes an institution or program of study as meeting certain predetermined criteria or standards.

Accreditation, Institutional:

The granting of recognition to an institution of learning by an official review board indicating that the institution as a whole has met established standards and that each of its parts is contributing to the achievements of the institution's objectives, although not necessarily all on the same level.

Accreditation, Specialized:

The granting of recognition to a program, department, or school that is part of a total collegiate or other type of postsecondary institution. The unit accredited may be as large as a college or school within a university or as small as a curriculum within a discipline.

Approval:

The giving of a formal or official sanction, or the taking of a favorable view.

Certification:

The process by which a recognized agency or association grants recognition to an individual who has met certain predetermined qualifications. The act on the part of a State or local government or another authorized body of granting official recognition that a person is qualified in keeping with the provisions of the certificate; it applies chiefly to professional services. The instrument of certification is usually in the form of a license.

Class:

A group of students enrolled together for a scheduled course of instruction; a group of students in an educational institution who entered together and who may graduate together.

Credential:

Something that gives a title to credit or show confidence.

Codes:

A stated body of laws, principles, or rules arranged systematically for easy reference (see standards).

Conference:

A meeting of a group of individuals to consider a particular subject or problem.

Continuing Education Units (CEU):

Normally defined as 10 contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction.

Course:

Organized subject matter in which instruction is offered within a given period of time and for which credit or certification is awarded upon successful completion of the requirements.

Course, Core:

A course required of all students in a program, providing instruction on minimum and basic essentials of the program.

Course, Terminal:

A course consisting of practical work and instruction in a technical or professional or semiprofessional occupation. Generally the course does not serve as a building block for further study in the subject matter.

Credit:

Official determination or value placed on the completion of a unit or course of study.

Criterion:

A standard, rule, or test by which something can be judged.

Curriculum:

A systematic group of courses or sequence of subjects required for graduation or certification in a major field of study; a general overall plan of the content or specific materials of instruction that an educational institution offers a student by way of qualification for

graduation or certification; a group of courses and planned experiences for a student under the guidance of the educational institution.

Department:

An administrative subdivision of an educational institution giving instruction in a branch of study.

Education:

The development of cognitive processes for attaining knowledge and skills, changes in attitudes and behavior, and growth of character by means of formal instruction and study. Included in cognition are perception, reasoning, conception, and judgement; also, the field of study that concerns itself primarily with the principles and methods of teaching and learning.

Education, Higher:

Formal training or education beyond high school.

Fire Community:

The total collection of all persons engaged in fire prevention and control activities.

Fire Services:

Any organization in any State or locality consisting of personnel, apparatus, and equipment that has as its purpose protecting property and maintaining the safety and welfare of the public from the dangers of fire, including a private firefighting brigade. The personnel of any such organization may be paid employees or unpaid volunteers or any combination thereof.

Institution:

An organization designed to serve some social purpose or end.

Institution of Higher Education:

An establishment organized for the purpose of providing higher education, perhaps offering advanced study, research, and instruction.

Learning:

The acquisition of symbolic knowledge or motor skills.

Licensure:

The process by which permission is granted to persons meeting predetermined qualifications to engage in a given occupation and/or use a

particular title; or granting of permission to institutions to perform specified functions.

Official Review Board:

A formal group specifically established to act independently to oversee, validate, develop, and implement certification and/or accreditation.

Program:

A plan or procedure for dealing with some matter through a logical sequence of operations.

Program, Educational:

The collection of all requirements, including courses that define a recognized field of study leading to a degree and/or other certification. Where completion of a program may require something other than courses in a field: i.e., physical education, co-op work/study, auxiliary courses, and the like.

Program, Instructional:

Procedures, courses, and subjects offered by an educational institution over a period of time; statement or description of instructional activity over a period of time.

Recognition:

The formal acknowledgment that certain predetermined criteria have been fulfilled.

Registration:

The process by which qualified individuals are listed on an official roster maintained by an agency or organization.

Sanction:

The act of a recognized authority confirming or ratifying an action; authorized approval or permission.

School:

A place for formal training and instruction; a division within an educational institution offering a curriculum of study in a special field.

Seminar:

A form of class organization in higher education in which a group of advanced students engage in study or research under the general direction

of one or more teaching staff members for discussion of problems of mutual interest.

Standards:

Criteria established for use as a rule or basis of comparison in measuring or judging.

Standards, Achievement (Academic):

Specific levels of attainment or goals to be mastered in educational programs.

Standards and Codes:

Documents which have been judged suitable for legal adoption and enforcement which contain mandatory requirements (see codes).

Training:

The teaching, drill, or discipline necessary for the mastering of a particular skill or group of skills. Training is associated with vocational skills as the process or experience of making one proficient or qualified to perform certain actions or tasks.

APPENDIX B

THE PEER GROUP AND THE ACCREDITATION PROCESS[1]

Academic accreditation in the United States is essentially a peer group process for both institutional or specialized accreditation.

Although the decisionmaking body and the visiting team involved in the institutional accreditation process will be diverse, each will contain knowledgeable peers for the various components undergoing evaluation and for the institution as an overall unit. For example, if the financial resources and the general administrative financial organization of an institution is under review, the visiting team will include at least one person knowledgeable in institutional financial affairs. The decisionmaking body within the accreditation organization will have similar expertise.

Specialized accreditation involves a more restrictive application of the above generalities. When evaluating engineering programs, for example, the Engineers' Council for Professional Development (ECPD) uses visiting teams that include at least one knowledgeable engineer for each program under consideration. The accreditation decisionmaking body within the ECPD also is made up of engineers knowledgeable in the profession.

The remainder of this section focuses on the peer group in specialized accreditation because this type of accreditation is most suitable for fire-related academic programs.

Any organization seeking to become the responsible authority for specialized accreditation in a given field should seek recognition from

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[1] Beckmann, R.B., College of Engineering, University of Maryland, College Park, Maryland; based on a presentation to the 81st Annual Meeting of the National Fire Protection Association, May 1977, Washington, D.C.

the Council on Postsecondary Accreditation (COPA), which is:

> ...dedicated to fostering and maintaining strength, excellence, and diversity through its assigned role in the national community of American postsecondary education. COPA is a private, nongovernmental, nonprofit educational association established with the encouragement of the postsecondary educational community. It was given as part of its mandate the responsibility to review, evaluate, and publicly designate through a recognition process reputable and responsible accrediting bodies, to coordinate their accrediting activities, and to reevaluate the bodies periodically to help insure that they maintain acceptable levels of performance.[2]

As a prelude to acceptance of a specialized accreditation organization, educational institutions generally require COPA recognition or pending COPA recognition.

The Advisory Committee on Accreditation and Institutional Eligibility also maintains a listing of nationally recognized accrediting agencies and associations.[3] The Committee assists the United States Commissioner of Education to determine eligibility; it also advises the Commissioner on broader policy matters and specific issues relating to accreditation and institutional eligibility for Federal funding.

Neither COPA nor HEW define what constitutes a peer group in the context of programmatic professional accreditation. According to COPA:

> Item B-5: Concerning its public responsibility an agency (accrediting) makes publicly available academic and professional information about members of its policy and decisionmaking bodies and its administrative personnel.

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[2]Council on Postsecondary Accreditation, Provisions and Procedures for Becoming Recognized as an Accrediting Agency for Postsecondary Educational Institutions or Programs (Washington, D.C.), Oct. 25, 1975.

[3]The Advisory Committee is part of the Bureau of Postsecondary Education, Office of Education, U.S. Department of Health, Education, and Welfare.

and

> Item C-7: Concerning its evaluative practices and procedures, an agency (accrediting) appoints to visiting teams, in consultation with institutions or programs, persons who are competent by virtue of experience, training, and orientation, taking reasonable precautions to insure that those selected will be able to develop, render, and articulate objective opinions and decisions free of self-interest and professional bias.[4]

According to HEW:

> The agency or association uses competent and knowledgeable persons, qualified by experience and training, and selects such persons in accordance with nondiscriminatory practices: (A) to participate on visiting evaluation teams; (B) to engage in consultative services for the evaluation and accreditation process; and (C) to serve on policy and decision-making bodies.[5]

The language used by the two organizations is quite similar. Although neither defines peer group per se, the key wording refers to competence or qualification by virtue of experience, training, education, and orientation.

A more specific definition of peer group qualifications for fire education requires the identification of two areas: (1) the general types of programs envisioned to be candidates for the accreditation process (fire science, fire service administration, and fire protection related to engineering or engineering technology) and whether the proposed accreditation process is for two-year (associate) or four-year (baccalaureate)

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[4] Council on Postsecondary Accreditation, op. cit.

[5] Bureau of Postsecondary Education, Office of Education, U.S. Department of Health, Education, and Welfare, Nationally Recognized Accrediting Agencies and Association Criteria and Procedures (Washington, D.C.) March 1977.

programs; and (2) the marketplace for which graduates are trained. The latter factor is important to insure that the academic process recognizes and fulfills the practicing needs of the profession and its ever changing requirements.

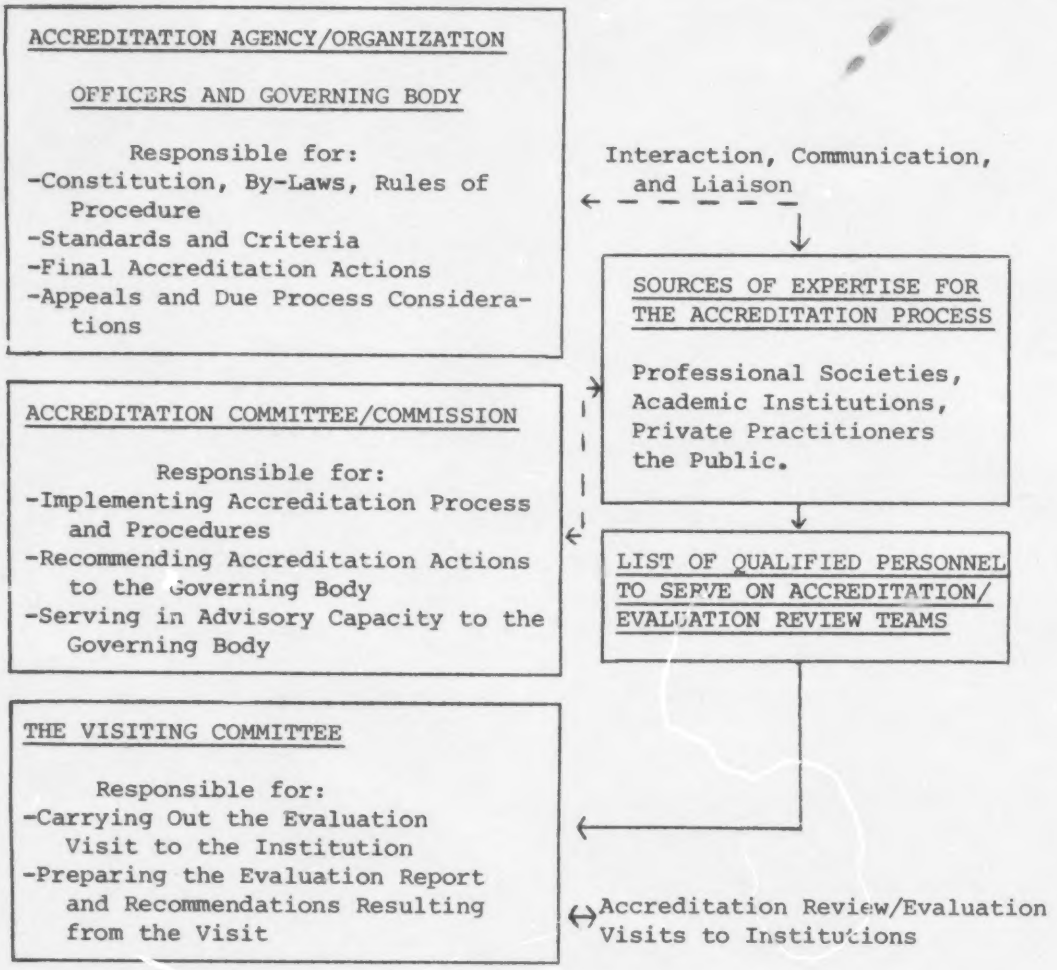
Presuming the above two factors are specified, appropriate peer group personnel would fall, normally, into one of the following two classifications:

- Academic. College or university faculty teaching major field courses in the appropriate fire education program. Faculty of senior rank and having recognized expertise in the field.
- Practicing Professionals. Industry/government or self-employed professionals having recognized expertise and experience in the field of professional practice and a demonstrated interest in education.

Faculty representatives should have senior rank and a recognized reputation to insure acceptance of qualifications by the program seeking accreditation. Similarly, the practicing professional should have a demonstrated interest in education and the ability to mesh practicing professional requirements with the education process. This latter qualification can be demonstrated in a variety of ways: as a part-time lecturer at an academic institution, a member of academic visiting or advisory committees, or a participant in the education activities of an appropriate professional society.

Defining the desired characteristics for peer group personnel is not difficult; more problematic is how to devise a mechanism for locating qualified personnel who are willing to devote the time and energy required. A common procedure is to seek nominations and assistance from professional societies in the field. ECPD, for example, relies almost exclusively on this mechanism.

Figure B.1. SCHEMATIC REPRESENTATION OF THE PEER GROUP ACCREDITATION PROCESS


ACCREDITATION AGENCY/ORGANIZATION
OFFICERS AND GOVERNING BODY
Responsible for:
-Constitution, By-Laws, Rules of Procedure
-Standards and Criteria
-Final Accreditation Actions
-Appeals and Due Process Considerations
Interaction, Communication, and Liaison
SOURCES OF EXPERTISE FOR THE ACCREDITATION PROCESS
Professional Societies, Academic Institutions, Private Practitioners the Public.
ACCREDITATION COMMITTEE/COMMISSION
Responsible for:
-Implementing Accreditation Process and Procedures
-Recommending Accreditation Actions to the Governing Body
-Serving in Advisory Capacity to the Governing Body
LIST OF QUALIFIED PERSONNEL TO SERVE ON ACCREDITATION/ EVALUATION REVIEW TEAMS
THE VISITING COMMITTEE
Responsible for:
-Carrying Out the Evaluation Visit to the Institution
-Preparing the Evaluation Report and Recommendations Resulting from the Visit
Accreditation Review/Evaluation Visits to Institutions

THE ACCREDITATION PROCESS

The process of accreditation always involves two parties: the accreditor and the accreditee.

The accreditation process usually involves six basic features, as follows:

1. The STANDARDS and/or CRITERIA upon which the accreditation decision is based.
2. A SELF-STUDY prepared by the institution seeking accreditation.
3. An ON-SITE EVALUATION to determine if the STANDARDS have been met.
4. The mechanism of the final ACCREDITATION DECISION PROCESS by the Accreditor.
5. The TERM OF ACCREDITATION and REEVALUATION.
6. PUBLICATION by the Accreditor of an official listing of those institutions meeting its standards.

ACCREDITATION IS A PEER GROUP EVALUATION PROCESS; IT MUST SERVE A PUBLIC NEED AND IS A VOLUNTARY REQUEST ON THE PART OF THE INSTITUTION.

THE STANDARDS AND/OR CRITERIA UPON WHICH ACCREDITATION IS BASED

ACCREDITEE	ACCREDITOR
a. Should have opportunity for input to standards development and/or changes in standards.	a. Must have well defined procedures for developing standards, considering and implementing changes. b. Implementation schedule should be well publicized with a reasonable time frame for implementation of changes. c. Changes cannot be retroactive.

THE SELF STUDY PREPARED BY THE INSTITUTION

ACCREDITEE	ACCREDITOR
a. Must have a reasonable time frame from the initiation of the accreditation request to the completion of the self study.	a. Responsible for developing scope, format, and objectives of the self-study document.

b. The self-study shcould encompass the widest possible segment (administration and faculty) of the institution.	b. The self-study should be an integral part of the evaluation process. c. The self-study document must be considered confidential.

ON-SITE EVALUATION OF THE INSTITUTION

ACCREDITEE	ACCREDITOR
a. Details of the on-site evaluation schedule should be well publicized within the institution. b. Members of the on-site evaluation team must be (obviously) qualified for their task and each individual team member must be acceptable to the Institution. The Institution does not select the team members. c. The exit interview affords the institution opportunity for reaction to some of the general findings and observations. If the exit interview accomplishes its purpose, the final report on the visit should contain no surprises.	a. Details of the on-site evaluation developed jointly with the institution. Procedures should be generally the same for all institutions. b. Purpose of each activity during the on-site evaluation is clearly defined. c. Should have well-defined procedures for composing the on-site evaluation team members and defining their duties. d. The ultimate accreditation decision mechanism should be clearly documented. That is, is the accreditation decision a function of the visiting team or merely a report and/or recommendation to the final decision authority of the accreditor? e. There should be an exit interview between the visiting team and institution representatives. There is, however, no indication of the accreditation action to be recommended; it is a preview of strengths and weaknesses to be in final report.

THE MECHANISM OF THE FINAL ACCREDITATION DECISION PROCESS

ACCREDITEE

a. At some point before the final decision process, the accreditee must have an opportunity to review the final report for "errors in fact" or supply supplemental information. It does not comment on "judgement statements" (due process).

b. Institution must recognize the confidentiality of the accreditation decision. Accreditor organizations generally have specific policies with regard to publication of accreditation decisions.

ACCREDITOR

a. The actual decision mechanism within the accreditor organization must be well defined and publicized. For example: Evaluation Team--Accreditation Committee--Board of Directors, etc. That segment making the final decision must be public knowledge.

b. The final accreditation decision is conveyed to the institution in writing along with the final report. These are confidential documents to the institution.

c. The accreditor must have a specific appeal policy and procedure.

THE TERM OF ACCREDITATION AND REEVALUATION

ACCREDITEE

a. The term of the accreditation given the institution may also specify whether it applies retroactively. For example: an institution receives accreditation effective Sept. 1, 1977 but the accreditor may state that this accreditation status applies to all graduates during 1976-77; i.e., retroactive for one year.

ACCREDITOR

a. The term of the accreditation is specified at the same time the accreditation decision is made and conveyed to the institution.

b. The reevaluation procedures and mechanisms for extension/renewal of the institution's accreditation must be well defined and publicized. This could be another on-site evaluation or based on a report by the institution. Usually, on-site evaluations are required at specified intervals, and reports are used for short term adjustments.

c. The accreditor notifies the institution well in advance of the expiration of the term of accreditation to allow time for meeting the accreditation schedule. This is simply a notification since the request for re-accreditation is voluntary on the part of the institution.

PUBLICATION OF LISTS OF ACCREDITED INSTITUTIONS

ACCREDITEE

a. The accreditee is generally supplied a galley-proof of how its listing will appear. This is simply a check to minimize editorial errors. This is usually more important where program accreditation (hence the specific name of the program) is involved.

ACCREDITOR

a. The accreditor publishes at periodic intervals (usually annually) lists of those institutions having their accreditation.

b. These listings usually include the date the institution (or programs) received intitial accreditation and the date of expiration.

APPENDIX C

QUANTITATIVE AND QUALITATIVE CRITERIA USED BY THE ENGINEERS' COUNCIL FOR PROFESSIONAL DEVELOPMENT (ECPD) FOR THE ACCREDITATION EVALUATION REVIEW OF PROGRAMS IN ENGINEERING AND IN ENGINEERING TECHNOLOGY [1]

Baccalaureate Programs in Engineering

The specific criteria that a baccalaureate (basic) level engineering program must meet for accreditation by the ECPD are detailed in that organization's annual reports. In brief, the factors considered in the accreditation evaluation review (at periodic intervals not to exceed six years are:

- The extent to which the program develops an ability to apply pertinent knowledge to the practice of engineering in an effective and professional manner.
- The size and competence of the faculty: the standards and quality of instruction in the engineering areas as well as in the supportive sciences and other areas serving the engineering student.
- The admission, retention, and scholastic work of the students and the records of graduates in further academic study and/or professional practice.
- The attitude and policy of the administration towards teaching, research, and scholarly productivity; and the general quality of leadership.
- The commitment of the institution, financially and philosophically, to the engineering program.

In terms of specific criteria relating to the curriculum content, the ECPD requires:

- 0.5 year (equivalent) devoted to the humanities and social studies.
- 0.5 year (equivalent) of mathematics beyond trigonometry.
- 0.5 year (equivalent) devoted to the basic sciences such as physics, chemistry, the life sciences, etc.

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[1] 45th Annual Report of the ECPD, Vols. 1, 2, and 3, Sept. 30, 1977, 345 East 47th Street, New York, N.Y. 10017

- 1.0 year (equivalent) of engineering sciences including those basic to engineering generally and those relevant to the specific engineering discipline.

- 0.5 year (equivalent) of integrating engineering design, systems analysis and synthesis.

The above quantitative criteria add to three (equivalent) years of the normal four-year program. The remaining time is available for individual educational objectives of the students or their institutions.

Associate or Baccalaureate Programs in Engineering Technology

The criteria used by the ECPD in evaluating associate or baccalaureate-level engineering technology programs differ according to the degree level of the program. The qualitative, or general, criteria follow the same format as engineering programs, but are viewed in the context of the objectives of engineering technology. The specific ECPD minimum curricular criteria for the associate or the baccalaureate degree program are as follows:

Associate Programs in Engineering Technology

- 0.5 year (equivalent) of basic sciences plus mathematics. The basic sciences to include laboratory experiences involving experimentation, observation, and measurement. Mathematics to extend from College Algebra to the concepts and applications of Calculus.

- 1.0 year (equivalent) of technical courses relating to science applications generally and within the program specialty.

- 0.25 year (equivalent) of non-technical courses in oral and written communications, and humanities and social studies.

The total time specified is 1.75 years (equivalent).

Baccalaureate Programs in Engineering Technology

- 0.75 year (equivalent) of basic sciences and mathematics. At the Associate degree level, the basic sciences and mathematics

are about equally divided; the additional quarter year may be in either or both areas according to the needs of the particular program.

- 0.75 year (equivalent) of oral and written communications, and humanities and social studies.

- 1.5 years (equivalent) of technological courses, including technical sciences, technical specialty, and technical electives. The technical specialty will incorporate skills and techniques, and technical design; the technical electives must support career/program objectives.

The total time specified is 3.0 years (equivalent). Again, it is to be noted that the ECPD minimum quantitative requirements total less than the normal academic time-requirements for the degree; this provides adequate time for incorporating into the program individual educational objectives of the students or their institution.

APPENDIX D

REQUIREMENTS OF THE MIDDLE STATES ASSOCIATION OF COLLEGES AND SCHOOLS FOR "CANDIDATE FOR ACCREDITATION STATUS"[1]

The Middle States Association of Colleges and Schools is a voluntary association of educational institutions. Membership follows upon accreditation by either the Commission on Secondary Schools or the Commission on Higher Education.

The work of the Commission on Higher Education fosters constructive interaction among individuals and institutions representing the postsecondary academic community in the Middle States area. This interaction is a means, devised and used by freely associated educators, of making responsible professional judgments about the effectiveness of educational institutions, a statement to the general public that an institution has clearly defined appropriate educational objectives, has established conditions under which their achievement can reasonably be expected, appears in fact to be accomplishing them substantially, and is so organized, staffed, and supported that it can be expected to continue to do so.

Candidacy for accreditation offers institutions the opportunity to establish an initial, formal, and publicly recognized relationship with a regional accrediting commission. It is a status of affiliation which indicates that an institution appears to be progressing toward (although is not assured of) accreditation. The candidate classification is designed for postsecondary institutions which may or may not be fully operative. In either case an institution applying for candidacy must provide evidence of sound planning, have the resources to implement its plans, and appear to have the potential for attaining its goals within a reasonable time.

A. The Application

ELIGIBILITY

An institution applying for candidate status with the Commission on Higher Education must:

1) have a charter and/or formal authority from the appropriate governmental agency to award an academic degree;

2) have a governing board which includes a membership broadly representative of the public interest. (This criterion is intended to assure that a governing board includes individuals who have no current involvement in

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[1]Reprinted with the permission of the Commission on Higher Education, Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, Pennsylvania 19104

a professional or proprietary capacity with the educational institution on whose board they are serving, and whose service on that board can be subject in no way to current or potential conflicts of interests or loyalty. Members representing the public interest should be numerous enough to assure that they have an effective--though not necessarily a majority--voice in the affairs of the governing body);

3) devote all, or substantially all, of its gross income to the support of its educational purposes and programs;

4) have established an adequate financial base of funding commitments, and have available an externally audited financial statement, not more than one year old;

5) have employed a chief administrative officer;

6) offer, or plan to offer, one or more postsecondary educational programs equivalent to at least one academic year in length, with clearly defined and published objectives and a statement of the means for achieving them;

7) require, in addition to study of the areas of specialization proper to its principal educational programs, some work in general education and liberal arts or related areas, either as a prerequisite to or as clearly defined elements in those programs;

8) have admissions policies compatible with stated institutional objectives.

APPLICATION PROCEDURES

If the prerequisites listed above exist, an institution seeking candidacy should contact the Executive Director of the Commission on Higher Education. It is also a prerequisite for a staff member to visit the campus to discuss application procedures and materials.

For action at the December meeting of the Commission, the application must be filed by October 1. For action at the June meeting, the application must be filed by April 1.

After the staff visit, the institution should prepare its application materials. There are no application blanks to fill out. The following items constitute the application:

1) evidence of degree-granting authority;

2) copies of the Articles of Incorporation and/or the legal charter;

3) letter of intent stating that the institution plans to seek accreditation with all deliberate speed and indicating that the governing board has authorized the application for candidacy;

4) four copies of the catalog or a comparable prospectus;

5) four copies of a Candidate for Accreditation Planning Document, compiled in accordance with the directions given below.

APPLICATION MATERIALS

The subjects to be addressed in the application which constitutes a planning document for both institutional and Commission use should include, in addition to a brief history of the institution, current and give-year projections of the following:

1) the objectives of the institution, and any anticipated changes or modifications in these;

2) the constituency to be served by the institution, as well as expectations of enrollment distributions and the assumptions upon which these expectations rest;

3) the evaluation procedures used to assess institutional effectiveness, and/or the projected program for continued evaluation;

4) the current educational programs(s), its (their) relationship to the institution's objectives and constituency and to the directions in which the curriculum is expected to develop;

5) the financial base of the institution, and anticipated staffing for institutional growth and development;

6) the personnel who staff the institution, and future plans for staffing the educational programs and their supportive services;

7) the current plant and physical resources, and plans for their development;

8) the current library/learning resources center, with projections for its development;

9) the institution's organization and its decisionmaking procedures; their implications for institutional growth;

10) the current and anticipated problems and opportunities in the growth and development of the institution, as well as possible plans for solving or meeting them.

B. The Assessment

ASSESSMENT VISIT

After an institution files a complete application, at least two Middle States visitors are appointed to make an assessment of the institution.

Dates for this visit are set in consultation with the institution and the team members. For action at the December meeting of the Commission,

the assessment visit must be completed by November 1; for action at the June meeting, by May 1.

The institution arranges accommodations for the team, if they are needed.

In preparation for an assessment visit, team members study an institution's application materials and the Commission's policies and procedures on candidate status expressed in this document. They keep full notes on their analysis so that, before arriving on campus, they will have identified major strengths and weaknesses, areas of concerns, gaps in information, etc. In consultation with the chief executive officer of the institution, the team chairperson also arranges a schedule for the visit and communicates it to team members and the Commission staff member working with the institution.

The work schedule for an assessment visit should allow for maximum contact with appropriate college personnel. Usually team members meet with major administrators, faculty and students when available, and members of the governing board. At some time during the day a tour of facilities should be made. Before leaving the campus, the visitors have a team consultation meeting to summarize their findings, then meet with college representatives for a brief exit interview. At this interview, the chairperson presents the team's major observations about the institution's eligibility for candidacy and its planning. Under no circumstnces, however, do team members communicate the specific action they will recommend to the Commission.

A Commission staff member usually accompanies an assessment team, serving as an observer/resource person. His or her major role is to provide orientation for the team and interpretation or clarification of Commission policy.

Immediately after the visit, assessment team members report all expenses associated with the visit using the expense voucher provided on appointment to the team. Travel costs, meals, lodgings, and associated expenses are covered; in addition, a small honorarium is paid, in accordance with the schedule established by the Commission.

TEAM REPORT ON THE ASSESSMENT VISIT

Within a week of the visit, a brief report is prepared by the chairperson of the visiting team, essentially an assessment of the institution's eligibility for candidate status, its current stage of development, and its potential for attaining accreditation within a maximum of six years. It comments on the major limitations and difficulties which the institution is experiencing and the plans it has for overcoming them.

The report is addressed to the institution, and brevity is the key. A few pages are usually sufficient. A cover page should be attached which identifies the report as "Assessment Visitors Report to _____", giving the location of the institution as well as the date(s) of the visit. The visitors' full names and titles are also indicated.

For ease in reporting, the following format may be used:

I. Introduction

A. Nature and conduct of the visit
B. Background data on institution or brief institutional description

II. Fulfillment of Eligibility Requirements

A. Brief statements on institution's compliance with eligibility criteria
B. Weaknesses or problem areas
C. Recommendations for improvement

III. Quality of Institutional Planning

A. Observations on candidate and on over-all planning procedures
B. Recommendations for improvement

IV. Summary of Findings

The assessment report does not include the team's recommendation to the Commission regarding candidate status. This is communicated in a separate letter to the Commission. In the event of a negative recommendation, specific reasons must be set forth. Provisional or conditional recommendations are not acceptable.

As indicated below, the chairperson first sends a draft copy of the report to the institution. A short time later, he/she prepares the final report and sends it to the institution and to the Commission. The Commission's copy is accompanied by the recommendation.

INSTITUTIONAL RESPONSE TO THE ASSESSMENT REPORT

An institution has three opportunities for responding to the assessment report:

1) at the exit interview, informal discussion of major points is possible;

2) the chairperson sends a draft copy of the written report to the chief executive officer, asking for correction of factual data, inaccuracies, etc. The chairperson indicates in a covering letter by what date the corrected draft must be return to him/her;

3) when the chief executive officer receives the final assessment report, he/she prepares a formal institutional response and sends it to the Commission within one week of receiving the report. This formal response gives the institution a chance to agree or disagree with the team's findings and to provide the Commission with additional relevant information.

C. Commission Decision on Application for Candidate Status

When the Commission has received the assessment report, the team recommendation, and the formal institutional response, these documents are forwarded to the Commission's Committee on Candidate Institutions for review, discussion, and a Committee recommendation to the Commission for action.

In accordance with the schedule indicated above in Section B the Commissioner, after further review and discussion, takes action to grant or deny the status of Candidate for Accreditation.

DENIAL OF CANDIDATE STATUS

An institution which is not admitted to candidate status is free to reapply when it has substantially improved those aspects of its operation identified in the Commission decision as major areas of concern.

REFERENCE TO CANDIDATE STATUS IN INSTITUTIONAL PUBLICATIONS

Institutions granted the status of Candidate for Accreditation must utilize the following statement if they wish to describe that status publicly:

> Candidacy for Accreditation is a status of affiliation with a regional accrediting commission which indicates that an institution has achieved initial recognition and is progressing toward, but is not assured of, accreditation. It has provided evidence of sound planning and the resources to implement its plans, and appears to have the potential for attaining its goals within a reasonable time.

D. The Candidacy Period

PROCEDURES REQUIRED OF CANDIDATE INSTITUTIONS

Institutions admitted to the status of Candidate for Accreditation are required to:

1) file an annual institutional data summary in accordance with guidelines supplied by the Commission office;

2) file a copy of the annual external financial audit on either October 15 or February 15 of each year;

3) file a semi-annual interim report with the Commission office on October 15 and February 15 of each year. This report deals with significant developments during the six-month period it covers and brings the Commission up-to-date on the plans presented by the institution in its application document. The institution mails a copy of the report to its consultant, as well as to the Commission office;

4) work with a consultant appointed by the Commission. The consultant visits the institution twice a year, after he/she has received the interim reports referred to in 2) above. When long-established institutions are admitted to candidacy and immediately begin their preparations for an evaluation visit, the Commission sometimes waives this requirement. In other instances, the Commission may appoint two consultants, if the size or complexity of an institution warrents this arrangement;

5) undertake a self-study, be evaluated, and receive an accreditation decision from the Commission within six years of their admission to candidate status.

APPOINTMENT AND RESPONSIBILITIES OF A CONSULTANT

As noted above, the Commission usually appoints a consultant to work with an institution during its candidacy period. The appointment is made after consultation with the institution, and both the consultant and the institution are given the opportunity to review it each year.

A consultant's primary responsibility is to be an informed, objective advisor who places professional experience and judgment at the service of an institution, working with it to assure that it has clearly defined and appropriate objectives, that it effectively monitors all aspects of its educational activity, that it develops an ongoing planning process, that it has the resources to continue its work. He/she is not a problem-solver nor a source of immediate answers for an institution's difficulties, but rather a resource person who can assist in identifying institutional problems and contribute to the search for solutions.

The first task of a consultant is to study an institution's application materials and to understand clearly the nature of the institution, the stage of its development, the probable length of its candidacy period. The Commission staff member who worked with an institution through its application process will help the consultant establish this foundation for his/her work and will also be available for consultation at any time through the candidacy period.

The consultant's work with an institution does not lead to any recommendations to the Commission regarding accreditation. It is addressed directly to the institution and represents professional thought and judgment brought to bear on the institution's development. Accreditation may prove to be the result of the candidacy period, but it should not be viewed as the primary goal of the consulting relationship.

Consultants also have a direct responsibility to the Commission. By helping an institution to improve, they are necessarily contributing to its potential accreditability, and the Commission relies on the consultant for judgments on both an institution's progress and its readiness for evaluation. Consultants should, therefore, be thoroughly familiar with Characteristics of Excellence in Higher Education, and also with the

Handbook for Institutional Self-Study. A consultant who succeeds in maintaining a healthy balance between an institution's natural concern about accreditation and its deeper interest in increased educational effectiveness will be serving the best interests of both the institution and the Commission on Higher Education.

CONSULTING VISITS

1) Visits ordinarily occur in fall and spring and usually last one day. One-day visits may begin on the afternoon or evening of the first day and conclude on the afternoon of the second day, or they may be confined entirely to a single day. Two-day visits, if desired by the institution and agreeable to the consultant, may follow the same pattern, beginning on the afternoon or evening of the first day and concluding on the afternoon of the third day, or in the morning of the first day and concluding on the evening of the second day, or the two days may be separated by an interval of time.

2) The dates for consulting visits are set by the consultant and the president of the institution to be visited. Visits should take place shortly after the consultant has received from the president a copy of the institution's interim reports to the Commission, filed by October 15 and February 15 each year. If prior arrangements have not been made, the consultant should contact the president after receiving an interim report. The consultant should also take the initiative in contacting the president if the interim report fails to arrive within a reasonable period after the designated dates.

3) Any additional visits to an institution must be discussed with the Commission office, and no private arrangements should be entered into by a consultant and an institution during the time that the former is serving as the Commission's assigned consultant.

THE CONSULTANT'S REPORT

1) At the conclusion of each visit the consultant should meet with the president and other representatives of the institution to deliver an oral report on his or her observations.

2) After the visit, a brief written report in letter or memorandum form should be submitted promptly to the president of the institution with strong urging that it be shared as widely as possible within the institution (with other administrative officers, faculty, board members). A copy of the consultant's report should be sent also to the Commission office, along with a statement of expenses incurred in making the visit.

3) An institution's application materials usually provide the focal point for discussions during its consultant's first visit, though the consultant need not be limited to topics discussed therein. A basic continuity

should be observable through these materials, subsequent interim reports, and the consultant's reports to the institution. Taken together, these documents should constitute a fairly coherent account of an institution's progress through the period of candidacy. It should be noted again, however, that both the institution and the consultant should use these documents as the foundation for their ongoing dialogue, not as a limiting factor.

4) If the consultant wishes to comment in reports to the institution on sensitive or personal matters, he or she should do so separately in a confidential letter or orally to the president. For example, if in the consultant's judgment, specific staff relationships or staff performances seem inadequate, these matters should be discussed confidentially with the president or in rare instances with a trustee.

5) Every consultant's report should contain a disclaimer to the effect that the views expressed represent those of the consultant only and not of the Commission.

6) A consultant's reports are designed for use within an institution, not for publication. The Commission receives a copy of these reports, but it never makes them available to anyone except in the following cases:

    a) if an institution uses parts of a report in such a way as to misrepresent its status, the Commission reserves the right to make the full report available to the public;

    b) if a consultant must be replaced for any reason during the course of his or her relationship with an institution or if its candidate status must be reviewed, the Commission sends confidential copies of all reports to the new consultant or to the status review visitor.

RELATIONSHIP OF THE CONSULTANT TO THE EVALUATION

A Candidate for Accreditation may be considered for accreditation at any time within the six year period of candidacy, provided that it has graduated at least one class which has completed its full degree program. The evaluation visit will not occur until this first graduation has taken place.

Preparations for the evaluation visit, of course, may begin earlier, An institution proceeds into self-study and begins to prepare for evaluation after consultation with its consultant and with the Commission staff.

The decision to proceed into self-study and be considered for evaluation is normally made by mutual agreement among the institution, the consultant, and the Commission staff, and is arrived at through consultation in whatever timing and pattern best serve the institution. When consensus cannot be reached, the matter is taken to the Commission's Committee on Candidate Institutions.

The self-study process is formally initiated by a Commission staff member, who visits the campus at a time agreed upon with the institution. The Commission office will inform the consultant of this visit.

When a candidate institution has formally begun the self-study period, usually about eighteen months before its evaluation visit is to take place, it no longer is required to submit interim reports to the Commission. It is free, however, to arrange for continued visits from its consultant if it judges these to be useful and the consultant is willing to make them. Although consultants can be very helpful as reactors to the self-study process, they should not become involved in the preparation of the self-study document, since this should be the work of the institution. When the institution is prepared for an Appraisal of Readiness visit, the consultant relationship formally ends.

APPRAISAL OF READINESS VISIT

The Appraisal of Readiness for Evaluation is precisely what its name implies: a last minute checkup to give an institution the benefit of corroboration by experienced outsiders that it really is ready to be evaluated. The date for the evaluation visit is tentative until the institution's president has received the appraisers' report.

An appraisal of readiness is actually a consultative service, usually requiring a one-day campus visit by the person who may chair the evaluation visit and one other proposed team member. The result is reported directly to the institution to help its officers reach a decision on whether to go ahead with the full evaluation. The apparisal is designed to encourage an institution to make a strong bid for accreditation at the earliest practicable moment by removing some of the risk in doing so. But an appraisal is not an evaluation, and a favorable report does not guarantee that accreditation will quickly follow. An unfavorable appraisal report does not place the institution at a disadvantage but simply indicates that further preparation is advisable.

The appraisers report directly to the head of the institution, orally before they leave and in writing shortly thereafter. A copy of their written report is sent to the Commission's executive staff for their information, so that they can help the institution plan the next step. The evaluation team visit normally follows a favorable report in approximately eight weeks to three months.

REVIEW OF CANDIDATE STATUS

A candidate institution's interim reports and the reports from its consultant should provide cumulative evidence that it is progressing satisfactorily toward accreditation. The Commission reserves the right to remove an institution from the list of Candidates for Accreditation after due notice, if such evidence is lacking or if the conditions on which the institution was admitted to candidacy are radically altered.

In the event that a candidate institution fails to make satisfactory progress toward accredication, the Commission appoints a small team to visit the campus and to review the institution's status. The institution arranges accommodations for the team, if they are needed.

In preparation for such visits, status review visitors study the planning document originally submitted by the institution, the interim reports it has subsequently filed, the consultant's reports, and any pertinent materials supplied by the institution or the Commission office. Before arriving on campus, they should have identified the major discrepancies they perceive between the institution's original plans and its progress to date. In consultation with the chief executive officer of the institution, the chairperson of the status review team also arranges a schedule for the visit and communicates it to team members and to the Commission staff member working with the institution.

The work schedule for a status review visit should allow for maximum contact with appropriate college personnel. After a preliminary team orientation session, team members should meet with major administrators, faculty and students, members of the governing board, sponsors, and any related other groups. Before leaving the campus, the visitors have a team consultation meeting to summarize their findings, then meet with college representatives for a brief exit interview. At this interview, the chairperson presents the team's major observations on the institution's situation with respect to accreditation. They do not, however, communicate the recommendation they will make to the Commission.

Immediately after the visit, status review visitors report all expenses associated with the visit using the expense voucher provided on appointment to the team. Travel costs, meals, lodgings and associated expenses are covered; in addition, a small honorarium is paid, in accordance with the schedule established by the Commission.

Within a week of the visit, the chairperson sends to the chief executive officer a draft of his/her written report, essentially a presentation of the team's findings on the progress of the institution in the light of its application materials and interim reports. All major aspects of the institution should be touched on. The length of the report will vary according to institutional circumstances, but a maximum of ten pages is suggested. The chief executive officer reviews this draft for factual errors and misinterpretations only.

As soon as the corrected draft is returned to the chairperson, he/she prepares a final report and sends copies to both the institution and to the Commission. In a separate covering letter to the Commission, he/she recommends specific action regarding candidate status.

Shortly after receiving the final report, the chief executive officer sends to the Commission a formal institutional response, agreeing or disagreeing with the team's findings.

The status review report, the team's recommendation, and the institutional response are reviewed in turn by the Committee on Candidate Institutions and

by the full Commission. The latter body makes the decision regarding continuance in candidate status and communicates this decision to the institution.

An institution which is removed from candidate status may not ordinarily reapply for at least two years from the date of the Commission action. Cases of voluntary withdrawal will be handled individually.

E. Costs During Candidacy

1) The assessment visit preceding admission to candidate status:

The institution is billed by the Middle States Association office after the visit. The assessment fee is $150, plus travel costs and honoria for the visitors. The chairperson's honorarium is $100; additional visitors, $50 each. Living expenses are also billed if the institution has not handled them directly. Extended visits may require special billing.

2) The semi-annual visits of a consultant during the candidacy period:

After each visit the institution is billed by the Middle States Association office for the consultant's travel expenses and for an honorarium of $100 (plus $75 for each additional day, should a visit be extended). Living expenses are also billed if the institution has not handled them directly.

3) Annual fees:

Candidate institutions are assessed on an annual fee on the basis of full-time equivalent enrollment according to the following scale:

Full-Time Equivalent Enrollment	Annual Fee
Under 500	$ 430
501 to 1,000	740
1,001 to 2,000	800
2,001 to 3,500	980
3,501 to 5,000	1,100
5,001 to 10,000	1,350
More than 10,000	$1,470

Among the costs covered by this annual fee are those for services rendered by the Commission office and for all staff visits to the institution. The fee is also a means of sustaining an independent, non-governmental accrediting activity.

APPENDIX E

ACCREDITATION SURVEY BY THE ADVISORY COMMITTEE ON FIRE TRAINING AND EDUCATION OF THE NATIONAL ACADEMY FOR FIRE PREVENTION AND CONTROL: QUESTIONNAIRE AND RESULTS (1977)

The purpose of this survey is to gain further insight into "accreditation" and provide you an opportunity to have input into the deliberations of the Advisory Committee on Fire Training and Education of the National Academy for Fire Prevention and Control. Any comments you may have for the Committee are encouraged and welcomed either individually or on behalf of an organization.

NAME_____ TITLE_____

INSTITUTIONAL AFFILIATION_____

These definitions may help you answer the questions which follow:

ACCREDITATION - INSTITUTIONAL: The granting of recognition to an institution of learning by an official review board indicating that the institution as a whole has met established standards and that each of its parts is contributing to the achievements of the institution's objectives, although not necessarily all on the same level.

Example: North Central Association of Schools and Colleges.

ACCREDITATION - SPECIALIZED: The granting of recognition to a program, department, or school which is part of a total collegiate or other type of postsecondary institution. The unit accredited may be as large as a college or school within a university or as small as a curriculum within a discipline.

Examples: Engineer's Council for Professional Development, Society of American Foresters or the Nat'l. Architectural Accrediting Board.

GENERAL INFORMATION SECTION

1. Does your educational institution have "institutional" accreditation (from one of the regional Accrediting Associations)? Yes ___ No ___ Not Sure ___

   (a) If so, which one? _____

2. Does your fire-related educational program/curriculum have "specialized" or programmatic accreditation? Yes ___ No. ___ Not Sure ___

   (a) If so, by whom? _____

3. Does your program have any other mechanism of accreditation (by state, etc.)? Yes ___ No ___ Not Sure ___

4. In your state, must all 2-year college level fire programs use the same uniform or mandated curriculum? Yes ___ No ___ Not Sure ___

5. Is there a requirement for teacher licensure or certification in your state? Yes ___ No ___ Not Sure ___

   (a) If your answer to question 5 is yes, does this requirement also apply to instructors of your fire program? Yes ___ No ___ Not Sure ___

6. If you provide fire <u>training</u> programs within your institution does any part of it receive college credit? Yes ___ No ___ Not Sure ___

7. Does your institution award college credits for <u>training</u> done outside the institution? Yes ___ No ___ Not Sure ___

   (a) If so, cite example_____
   _____
   _____

8. Approximately, how many students/graduates of your program are not members of the public fire service and/or do not plan to be members of the public fire service? Students ___ Graduates ___

<u>OPINION SECTION</u>

9. Do you feel that the National Fire Academy should be accredited? Yes ___ No ___ Not Sure ___

10. Do you feel that there needs to be a "specialized" or programmatic accrediting agency (i.e., peer group) specifically for fire-related education programs in colleges? Yes ___ No ___ Not Sure ___

   (a) If your answer to question 10 is yes, should this specialized accrediting agency be of the same caliber as others in postsecondary educational accreditation? Yes ___ No ___ Not Sure ___

11. Do you feel that the National Fire Academy should be an accrediting agency for programs in fire education conducted on college campuses?

Yes ___
No ___
Not Sure ___

For further information on the Committee and/or their meetings contact:

R. Wayne Powell, Executive Secretary
Advisory Committee on Fire Training and Education
National Academy for Fire Prevention and Control
P.O. Box 19518
Washington, D.C. 20036

FINAL RESULTS FROM THE SURVEY ON ACCREDITATION

1.	Does your educational institution have "institutional" accreditation (from one of the Regional Accrediting Associations)?	Yes	52
		No	2
		Not Sure	0

(a) If so, which one?

COMMENTS:

Southern Assn. of Colleges
North Central (Candidacy)
North East Assn. of Colleges
Western Assn. of Colleges
Middle States Assn. of Colleges & Secondary Schools
Middle Atlantic
North West Accrediting Assn.
New England Assn. of Schools & Colleges

2.	Does your fire-related educational program/curriculum have "specialized" or programmatic accreditation?	Yes	17
		No	33
		Not Sure	4

(a) If so, by whom?

COMMENTS:

Tenn. Commission on Fire Fighter Standards
Mass. Board of Regional Commission-Colleges
Colorado State Board for Community Colleges and Occupational Education
Delaware County's: Pa. State Fire School - Lewistown
California State Board of Fire Service
Bureau of Fire Standards and Training - Ocala, Florida
Richland-Lexington County Area Commission
Ill. Community College Board
Ill. Fire Commission
Connecticut St. Firemen's Assn.
University of California
The course work is approved by the curriculum committee and the College Board
Part of 2 year AS degree program
State Board of Vocational, Technical and Adult Education
Associate Degree Program was accredited by ECPD
BS Degree Curriculum was examined by ECPD-Final Report Pending
The Dept. of Community Colleges as Specialization
City University System/State Education Department

3. Does your program have any other mechanism of accreditation (by state, etc.)?	Yes	23
	No	25
	Not Sure	3

COMMENTS:

By the Mass. Board of Regional Community Colleges
State of New York
State University of N.Y.
Ohio Board of Regents
What do you mean?
Ill. Comm. College Board
State approval is being sought for our AA program (as is required by law).
Tennessee Commission on Fire Fighting Personnel Standards and Education are setting up a mechanism for accrediting or approving programs.
Commission on Higher Education-Middle States Assn.
State Board of Regents for Higher Education

4. In your state, must all 2-year college level fire programs use the same uniform or mandated curriculum?	Yes	4
	No	49
	Not Sure	1

COMMENTS:

For all 13 regions.
Within the Mass. Community College system (15 Colleges) the curricula are almost identical in content.
State Colleges only, current curricula for private colleges and universities is expected from minimal state standards.
The State Fire Training Program suggest one but some colleges vary somewhat. The State Assn. of Fire Educators is trying to standardize it. But they have certain core subject requirements, and inset at least yearly to discuss mutual course needs.
Yes: To a degree but they are allowed to meet local needs with their own curriculums & with approval of the Dept. of Comm. Colleges & State Board of Education.

5. Is there a requirement for teacher licensure or certification in your state?	Yes	37
	No	16
	Not Sure	1
(a) If your answer to question 5 is yes, does this requirement also apply to instructors of your fire program?	Yes	24
	No	16
	Not Sure	0

COMMENTS:

Not at Community College level.
At Secondary level and in fire training but not at college.
In addition to the State requirement a certificate for college related subjects is required from the State Bureau of Fire Standards and Training.
Not on College level--Regional only.
At University level.
Only at High School level.
Only if full time instructors.

6.	If you provide fire training programs within your institution does any part of it receive college credit?	Yes	27
		No	21
		Not Sure	0

COMMENTS:

No training program.
Not for transfer to University.
Will not accept credits for training when transfer.
Don't provide.

7.	Does your institution award college credits for training done outside the institution?	Yes	26
		No	24
		Not Sure	0

(a) If so, cite example.

COMMENTS:

Courses may be challenged if in the opinion of the instructor the student has had acceptable training. Tuition must be paid. The challenge test time is worked out between instructor and student.
EMT training--certification of nurses, fire fighters and dental hygienist.
Airport fire fighter USAF Program, and for any military fire program.
Credit is given for life experience which is for part of a training program.
Advanced Standing--An officer might be given credits for an introductory course based on his experience of training outside school.
CO-OP credits for in-service fire fighters. Effective Sept. 1977, we will no longer do so.
PACT Program--transfer credits in the Social Science area of graduation requirements.
Life experience accreditation & institutions.
Synopsias-Workshops--Fire Department Academy Programs.
No credit is given for hands-on practical firemanship.
Field Programs Seminars.

COMMENTS: (Continued)

Courses taken at other fire academies or training in military.
Maximum of 4 credits for outside training & education.
EMTA, ERT.
Limited credit for experimental learning: Fire Academy Training (Basic) 9 Units total
2 Lecture courses (6 Units)
2 Lab Courses (3 Units)
EMT
CLEP, transfer credit for other school.
Not as long as J. J. Guthrie has anything to say about it. There is much pressure to "give" credit for vocational training.
No training--Yes on Education credits.
Only for two courses Method of teaching by Dept. of Comm. Colleges; and EMT courses which are certified by a testing procedure by State.
NYC Fire Department Port Authority if deemed acceptable by Fire Science Department
66 hour basic training (State)--3 credit hours.

8. Approximately, how many students/graduates of your program are not members of the public fire service and/or do not plan to be members of the public fire service?

COMMENTS:

	Low	High	Low%	High%
Students	0	300	1	60
Graduates	0	100	1	15

One of our graduates has a job on his days off managing a fire & safety program for a company with plants in three states, they are completely satisfied with his performance.
Intentions of cadets are unknown.

OPINION SECTION

9. Do you feel that the National Fire Academy should be accredited?

Yes	38
No	10
Not Sure	4

COMMENTS:

I feel it would detract from its prime objective of developing information for the field.
It can grant no degrees.
Institutional--By regional Assn.
For what/to do what?

10.	Do you feel that there needs to be a "specialized" or programmatic accrediting agency (i.e., peer group) specifically for fire-related education programs in colleges?	Yes	44
		No	5
		Not Sure	2
	(a) If your answer to question 10 is yes, should this specialized accrediting agency be of the same caliber as others in postsecondary educational accreditation?	Yes	36
		No	3
		Not Sure	6

COMMENTS:

The peer group should be exactly as stated. In other words, Junior College or Community College programs should be a peer group and fire engineering colleges should be a peer group. CAUTION: Do not try to put the two year college programs on an engineering curriculum. Community colleges are for the local communities. Our program training for the needs of our community.
If we are to serve the private industry.
Requires special knowledge.
Higher.
Basically I agree with standardization, but I am concerned with the requirements that would be instituted.
NFPA College Section.
The "peer group" for "Fire Protection" is more inclusive than just fire service.
Not necessarily from what I've seen of the others.

11.	Do you feel that the National Fire Academy should be an accrediting agency for programs in fire education conducted on college campuses?	Yes	13
		No	30
		Not Sure	8

COMMENTS:

Through the focal points in the State. However, if the State Fire Academics become the focal points for the State, there must be equal representation* on the State focal point boards at the State Academy. Otherwise, the State Academies will take care of their own interest first.

*Representation: meaning representation where college members carry as much weight by vote as State Academy Directors and Members. The State Fire Board is presently stacked against Junior Colleges and Senior Colleges in the State of Mississippi. This political machine has developed over the years and is saturated throughout the entire State Fire Service in favor of the State Fire Academy.

11. COMMENTS: (Continued)

If such a group is created.
If the system were realistic & satisfactory.
The Academy seems the logical agency.
Not as they stand now.
Concerning accreditation, I think it is absolutely vital for academic and specialized approval for curricula be established for any institution.
The alternative to non-accreditation is a virtually useless program of questionable value at best. Curricula need not be standardized to the point of duplication, but the National Academy should be able to offer specialized courses in fire administration and technology.
I, so far, have been impressed by the intentions and progress thus far on the part of the NFA.
Only if Federal Aid is provided, then as advisory Agency only. We need a branch of NFA on the West Coast, it is impossible for us to attend meetings on the East Coast.
Too many Chiefs not enough Indians.
In states, such as Tennessee, where a central agency of the state is empowered to oversee college programs dealing in Fire Science conflict with any other accreditation board is inevitable.
Guidelines should be furnished state agencies pertaining to course (or preferably program) content by NFPCA. A type of performance objectives specifying information to be included as minimum criteria may be considered. These guidelines would, by necessity, be broad.
Since the NFPCA has chosen to deal with only one organization within each state, it seems to be in order that this practice be continued. Rather than consider each and every program in the U.S. on an individual basis, the NFPCA should furnish guidelines to the particular state agency through which they are dealing. Adequate uniformity of program content could be brought about by such administration.
Any NFPCA guidelines concerning course or program content would be expressed as minimum requirements. Any state or individual program which sees fit to be more thorough or extensive should be welcome to do so.
Opinions expressed in this note are personal. They do not reflect any opinion, necessarily, other than my own.
Only when NFA is itself accredited.

APPENDIX F

MEETINGS HELD BY THE ADVISORY COMMITTEE ON FIRE TRAINING AND EDUCATION

1. January 31- February 1, 1977
   Washington, D.C.

2. April 25-26, 1977
   Washington, D.C.

3. July 25-27, 1977
   Seattle, Washington

4. October 21-22, 1977
   St. Louis, Missouri

5. January 5-6, 1978
   New Orleans, Louisiana

6. April 3-4, 1978
   Washington, D.C.

7. July 13-14, 1978
   Washington, D.C.

8. October 11, 1978
   Washington, D.C.

APPENDIX G

PERSONS OFFERING PRESENTATIONS TO THE ADVISORY COMMITTEE ON FIRE TRAINING AND EDUCATION

1.	Herbert Scales President California Fire Chiefs Association	(Third Meeting)
2.	James McSwain Chairman College Section International Society of Fire Service Instructors Oklahoma City, Oklahoma	(Third and Fifth Meetings)
3.	James J. Bemis Executive Director Commission on Colleges Northwest Association of Schools and Colleges Seattle, Washington	(Third Meeting)
4.	Larry Borgelt Oklahoma State University Chairman-Fire Science and Technology Educators Section of NFPA Stillwater, Oklahoma	(Third, Fourth, written statement at Fifth)
5.	Edward Prendergast Washington State Fire Training Academy Olympia, Washington	(Third Meeting)
6.	Cleo Hathaway Washington State Fire Training Academy Olympia, Washington	(Third Meeting)
7.	William Bates Far West Laboratories San Francisco, California	(Third Meeting)

8. John Bryan
Head
Department of Fire Protection Engineering
University of Maryland
College Park, Maryland — (Third Meeting)

9. James Erickson
Dean
Professional Studies at the Central Washington State College
Ellensburg, Washington — (Third Meeting)

10. Roger Neal
Firefighter
Salem Fire Department
Salem, Oregon — (Third Meeting-- written Comments)

11. Lawrence Walsh
Fire Science Coordinator and Instructor
Joliet Junior College
Joliet, Illinois — (Fifth Meeting)

12. Eugene Fottrell
Professor
Atlantic Community College
Past President, National Association of Fire Science and Administration
Mays Landing, New Jersey — (Fifth Meeting)

13. Richard Small
Director
Oregon Fire Standards and Accreditation Board
Salem, Oregon — (Third Meeting)

14. Betty Jo Mayeske
Director-Open University
International Association of Firefighters
Washington, D.C. — (Third Meeting)

15. Howard Tipton
Administrator
National Fire Prevention and Control Administration
Washington, D.C. — (Sixth Meeting)

APPENDIX H

TEXT OF THE FEDERAL FIRE PREVENTION AND CONTROL ACT OF 1974

Public Law 93-498
93rd Congress, S. 1769
October 29, 1974

An Act

88 STAT. 1535

To reduce losses of life and property, through better fire prevention and control, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Federal Fire Prevention and Control Act of 1974".

Federal Fire Prevention and Control Act of 1974.
15 USC 2201 note.

FINDINGS

SEC. 2. The Congress finds that—

15 USC 2201.

(1) The National Commission on Fire Prevention and Control, established pursuant to Public Law 90-259, has made an exhaustive and comprehensive examination of the Nation's fire problem, has made detailed findings as to the extent of this problem in terms of human suffering and loss of life and property, and has made ninety thoughtful recommendations.

15 USC 278f notes.

(2) The United States today has the highest per capita rate of death and property loss from fire of all the major industrialized nations in the world.

(3) Fire is an undue burden affecting all Americans, and fire also constitutes a public health and safety problem of great dimensions. Fire kills 12,000 and scars and injures 300,000 Americans each year, including 50,000 individuals who require extended hospitalization. Almost $3 billion worth of property is destroyed annually by fire, and the total economic cost of destructive fire in the United States is estimated conservatively to be $11,000,000,000 per year. Firefighting is the Nation's most hazardous profession.

(4) Such losses of life and property from fire are unacceptable to the Congress.

(5) While fire prevention and control is and should remain a State and local responsibility, the Federal Government must help if a significant reduction in fire losses is to be achieved.

(6) The fire service and the civil defense program in each locality would both benefit from closer cooperation.

(7) The Nation's fire problem is exacerbated by (A) the indifference with which some Americans confront the subject; (B) the Nation's failure to undertake enough research and development into fire and fire-related problems; (C) the scarcity of reliable data and information; (D) the fact that designers and purchasers of buildings and products generally give insufficient attention to fire safety; (E) the fact that many communities lack adequate building and fire prevention codes; and (F) the fact that local fire departments spend about 95 cents of every dollar appropriated to the fire services on efforts to extinguish fires and only about 5 cents on fire prevention.

(8) There is a need for improved professional training and education oriented toward improving the effectiveness of the fire services, including an increased emphasis on preventing fires and on reducing injuries to firefighters.

(9) A national system for the collection, analysis, and dissemination of fire data is needed to help local fire services establish research and action priorities.

(10) The number of specialized medical centers which are properly equipped and staffed for the treatment of burns and the rehabilitation of victims of fires is inadequate.

(11) The unacceptably high rates of death, injury, and property loss from fire can be reduced if the Federal Government establishes a

coordinated program to support and reinforce the fire prevention and control activities of State and local governments.

PURPOSES

15 USC 2202. SEC. 3. It is declared to be the purpose of Congress in this Act to—

(1) reduce the Nation's losses caused by fire through better fire prevention and control;

(2) supplement existing programs of research, training, and education, and to encourage new and improved programs and activities by State and local governments;

(3) establish the National Fire Prevention and Control Administration and the Fire Research Center within the Department of Commerce; and

(4) establish an intensified program of research into the treatment of burn and smoke injuries and the rehabilitation of victims of fires within the National Institutes of Health.

DEFINITIONS

15 USC 2203. SEC. 4. As used in this Act, the term—

(1) "Academy" means the National Academy for Fire Prevention and Control;

(2) "Administration" means the National Fire Prevention and Control Administration established pursuant to section 5 of this Act;

(3) "Administrator" means the Administrator of the National Fire Prevention and Control Administration;

(4) "fire service" means any organization in any State consisting of personnel, apparatus, and equipment which has as its purpose protecting property and maintaining the safety and welfare of the public from the dangers of fire, including a private firefighting brigade. The personnel of any such organization may be paid employees or unpaid volunteers or any combination thereof. The location of any such organization and its responsibility for extinguishment and suppression of fires may include, but need not be limited to, a Federal installation, a State, city, town, borough, parish, county, fire district, fire protection district, rural fire district, or other special district. The terms "fire prevention", "firefighting", and "firecontrol" relate to activities conducted by a fire service;

(5) "local" means of or pertaining to any city, town, county, special purpose district, unincorporated territory, or other political subdivision of a State;

(6) "Secretary" means the Secretary of Commerce; and

(7) "State" means any State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, the Canal Zone, Guam, American Samoa, the Trust Territory of the Pacific Islands and any other territory or possession of the United States.

ESTABLISHMENT OF THE NATIONAL FIRE PREVENTION AND CONTROL ADMINISTRATION

15 USC 2204. SEC. 5. (a) ESTABLISHMENT OF ADMINISTRATION.—There is hereby established in the Department of Commerce an agency which shall be known as the National Fire Prevention and Control Administration.

(b) ADMINISTRATOR.—There shall be at the head of the Administration the Administrator of the National Fire Prevention and Control Administration. The Administrator shall be appointed by the Presi-

dent, by and with the advice and consent of the Senate, and shall be compensated at the rate now or hereafter provided for level IV of the Executive Schedule pay rates (5 U.S.C. 5315). The Administrator shall report and be responsible to the Secretary.

(c) DEPUTY ADMINISTRATOR.—There shall be in the Administration a Deputy Administrator of the National Fire Prevention and Control Administration who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate now or hereafter provided for level V of the Executive Schedule pay rates (5 U.S.C. 5316). The Deputy Administrator shall perform such functions as the Administrator shall from time to time assign or delegate, and shall act as Administrator during the absence or disability of the Administrator or in the event of a vacancy in the office of Administrator.

PUBLIC EDUCATION

SEC. 6. The Administrator is authorized to take all steps necessary to educate the public and to overcome public indifference as to fire and fire prevention. Such steps may include, but are not limited to, publications, audiovisual presentations, and demonstrations. Such public education efforts shall include programs to provide specialized information for those groups of individuals who are particularly vulnerable to fire hazards, such as the young and the elderly. The Administrator shall sponsor and encourage research, testing, and experimentation to determine the most effective means of such public education. 15 USC 2205.

NATIONAL ACADEMY FOR FIRE PREVENTION AND CONTROL

SEC. 7. (a) ESTABLISHMENT.—The Secretary shall establish, at the earliest practicable date, a National Academy for Fire Prevention and Control. The purpose of the Academy shall be to advance the professional development of fire service personnel and of other persons engaged in fire prevention and control activities. 15 USC 2206.

(b) SUPERINTENDENT.—The Academy shall be headed by a Superintendent, who shall be appointed by the Secretary. In exercising the powers and authority contained in this section the Superintendent shall be subject to the direction of the Administrator.

(c) POWERS OF SUPERINTENDENT.—The Superintendent is authorized to—

(1) develop and revise curricula, standards for admission and performance, and criteria for the awarding of degrees and certifications;

(2) appoint such teaching staff and other personnel as he determines to be necessary or appropriate;

(3) conduct courses and programs of training and education, as defined in subsection (d) of this section;

(4) appoint faculty members and consultants without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and, with respect to temporary and intermittent services, to make appointments to the same extent as is authorized by section 3109 of title 5, United States Code; 5 USC 101 et seq.

(5) establish fees and other charges for attendance at, and subscription to, courses and programs offered by the Academy. Such fees may be modified or waived as determined by the Superintendent;

(6) conduct short courses, seminars, workshops, conferences, and similar education and training activities in all parts and localities of the United States;

(7) enter into such contracts and take such other actions as may be necessary in carrying out the purposes of the Academy; and

(8) consult with officials of the fire services and other interested persons in the exercise of the foregoing powers.

(d) PROGRAM OF THE ACADEMY.—The Superintendent is authorized to—

(1) train fire service personnel in such skills and knowledge as may be useful to advance their ability to prevent and control fires, including, but not limited to—

(A) techniques of fire prevention, fire inspection, firefighting, and fire and arson investigation;

(B) tactics and command of firefighting for present and future fire chiefs and commanders;

(C) administration and management of fire services;

(D) tactical training in the specialized field of aircraft fire control and crash rescue;

(E) tactical training in the specialized field of fire control and rescue aboard waterborne vessels; and

(F) the training of present and future instructors in the aforementioned subjects;

(2) develop model curricula, training programs, and other educational materials suitable for use at other educational institutions, and to make such materials available without charge;

(3) develop and administer a program of correspondence courses to advance the knowledge and skills of fire service personnel;

(4) develop and distribute to appropriate officials model questions suitable for use in conducting entrance and promotional examinations for fire service personnel; and

(5) encourage the inclusion of fire prevention and detection technology and practices in the education and professional practice of architects, builders, city planners, and others engaged in design and planning affected by fire safety problems.

(e) TECHNICAL ASSISTANCE.—The Administrator is authorized, to the extent that he determines it necessary to meet the needs of the Nation, to encourage new programs and to strengthen existing programs of education and training by local fire services, units, and departments, State and local governments, and private institutions, by providing technical assistance and advice to—

(1) vocational training programs in techniques of fire prevention, fire inspection, firefighting, and fire and arson investigation;

(2) fire training courses and programs at junior colleges; and

(3) four-year degree programs in fire engineering at colleges and universities.

Financial assistance.

(f) ASSISTANCE.—The Administrator is authorized to provide assistance to State and local fire service training programs through grants, contracts, or otherwise. Such assistance shall not exceed 4 per centum of the amount authorized to be appropriated in each fiscal year pursuant to section 17 of this Act.

Post, p. 1545.

(g) SITE SELECTION.—The Academy shall be located on such site as the Secretary selects, subject to the following provisions:

(1) The Secretary is authorized to appoint a Site Selection Board consisting of the Academy Superintendent and two other members to survey the most suitable sites for the location of the Academy and to make recommendations to the Secretary.

(2) The Site Selection Board in making its recommendations and the Secretary in making his final selection, shall give consideration to the training and facility needs of the Academy, environ-

mental effects, the possibility of using a surplus Government facility, and such other factors as are deemed important and relevant. The Secretary shall make a final site selection not later than 2 years after the date of enactment of this Act.

(h) CONSTRUCTION COSTS.—Of the sums authorized to be appropriated for the purpose of implementing the programs of the Administration, not more than $9,000,000 shall be available for the construction of facilities of the Academy on the site selected under subsection (g) of this section. Such sums for such construction shall remain available until expended.

(i) EDUCATIONAL AND PROFESSIONAL ASSISTANCE.—The Administrator is authorized to—

(1) provide stipends to students attending Academy courses and programs, in amounts up to 75 per centum of the expense of attendance, as established by the Superintendent;

(2) provide stipends to students attending courses and nondegree training programs approved by the Superintendent at universities, colleges, and junior colleges, in amounts up to 50 per centum of the cost of tuition;

(3) make or enter into contracts to make payments to institutions of higher education for loans, not to exceed $2,500 per academic year for any individual who is enrolled on a full-time basis in an undergraduate or graduate program of fire research or engineering which is certified by the Superintendent. Loans under this paragraph shall be made on such terms and subject to such conditions as the Superintendent and each institution involved may jointly determine; and

(4) establish and maintain a placement and promotion opportunities center in cooperation with the fire services, for firefighters who wish to learn and take advantage of different or better career opportunities. Such center shall not limit such assistance to students and graduates of the Academy, but shall undertake to assist all fire service personnel.

(j) BOARD OF VISITORS.—Upon establishment of the Academy, the Secretary shall establish a procedure for the selection of professionals in the field of fire safety, fire prevention, fire control, research and development in fire protection, treatment and rehabilitation of fire victims, or local government services management to serve as members of a Board of Visitors for the Academy. Pursuant to such procedure, the Secretary shall select eight such persons to serve as members of such Board of Visitors to serve such terms as the Secretary may prescribe. The function of such Board shall be to review annually the program of the Academy and to make comments and recommendations to the Secretary regarding the operation of the Academy and any improvements therein which such Board deems appropriate. Each member of such Board shall be reimbursed for any expenses actually incurred by him in the performance of his duties as a member of such Board.

(k) ACCREDITATION.—The Superintendent is authorized to establish a Committee on Fire Training and Education which shall inquire into and make recommendations regarding the desirability of establishing a mechanism for accreditation of fire training and education programs and courses, and the role which the Academy should play if such a mechanism is recommended. The Committee shall consist of the Superintendent as Chairman and eighteen other members appointed by the Administrator from among individuals and organizations possessing special knowledge and experience in the field of fire training and education or related fields. The Committee shall submit to the Administrator within two years after its appointment, a full and complete

Committee on Fire Training and Education. Establishment.

Report to Administrator.

Termination.

report of its findings and recommendations. Upon the submission of such report, the Committee shall cease to exist. Each appointed member of the Committee shall be reimbursed for expenses actually incurred in the performance of his duties as a member.

(l) ADMISSION.—The Superintendent is authorized to admit to the courses and programs of the Academy individuals who are members of the firefighting, rescue, and civil defense forces of the Nation and such other individuals, including candidates for membership in these forces, as he determines can benefit from attendance. Students shall be admitted from any State, with due regard to adequate representation in the student body of all geographic regions of the Nation. In selecting students, the Superintendent may seek nominations and advice from the fire services and other organizations which wish to send students to the Academy.

FIRE TECHNOLOGY

15 USC 2207.

SEC. 8. (a) TECHNOLOGY DEVELOPMENT PROGRAM.—The Administrator shall conduct a continuing program of development, testing, and evaluation of equipment for use by the Nation's fire, rescue, and civil defense services, with the aim of making available improved suppression, protective, auxiliary, and warning devices incorporating the latest technology. Attention shall be given to the standardization, compatibility, and interchangeability of such equipment. Such development, testing, and evaluation activities shall include, but need not be limited to—

(1) safer, less cumbersome articles of protective clothing, including helmets, boots, and coats;

(2) breathing apparatus with the necessary duration of service, reliability, low weight, and ease of operation for practical use;

(3) safe and reliable auxiliary equipment for use in fire prevention, detection, and control, such as fire location detectors, visual and audio communications equipment, and mobile equipment;

(4) special clothing and equipment needed for forest fires, brush fires, oil and gasoline fires, aircraft fires and crash rescue, fires occurring aboard waterborne vessels, and in other special firefighting situations;

(5) fire detectors and related equipment for residential use with high sensitivity and reliability, and which are sufficiently inexpensive to purchase, install, and maintain to insure wide acceptance and use;

(6) in-place fire prevention systems of low cost and of increased reliability and effectiveness;

(7) methods of testing fire alarms and fire protection devices and systems on a non-interference basis;

(8) the development of purchase specifications, standards, and acceptance and validation test procedures for all such equipment and devices; and

(9) operation tests, demonstration projects, and fire investigations in support of the activities set forth in this section.

(b) LIMITATION.—The Administration shall not engage in the manufacture or sale of any equipment or device developed pursuant to this section, except to the extent that it deems it necessary to adequately develop, test, or evaluate such equipment or device.

(c) MANAGEMENT STUDIES.—(1) The Administrator is authorized to conduct, directly or through contracts or grants, studies of the operations and management aspects of fire services, utilizing quantitative techniques, such as operations research, management economics, cost effectiveness studies, and such other techniques and methods as

may be applicable and useful. Such studies shall include, but need not be limited to, the allocation of resources, the optimum location of fire stations, the optimum geographical area for an integrated fire service, the manner of responding to alarms, the operation of citywide and regional fire dispatch centers, firefighting under conditions of civil disturbance, and the effectiveness, frequency, and methods of building inspections.

(2) The Administrator is authorized to conduct, directly or through contracts or grants, research concerning the productivity and efficiency of fire service personnel, the job categories and skills required by fire services under varying conditions, the reduction of injuries to fire service personnel, the most effective fire prevention programs and activities, and techniques for accurately measuring and analyzing the foregoing.

(3) The Administrator is authorized to conduct, directly or through contracts, grants, or other forms of assistance, development, testing, and demonstration projects to the extent deemed necessary to introduce and to encourage the acceptance of new technology, standards, operating methods, command techniques, and management systems for utilization by the fire services.

(4) The Administrator is authorized to assist the Nation's fire services, directly or through contracts, grants, or other forms of assistance, to measure and evaluate, on a cost-benefit basis, the effectiveness of the programs and activities of each fire service and the predictable consequences on the applicable local fire services of coordination or combination, in whole or in part, in a regional, metropolitan, or statewide fire service.

(d) RURAL ASSISTANCE.—The Administrator is authorized to assist the Nation's fire services, directly or through contracts, grants, or other forms of assistance, to sponsor and encourage research into approaches, techniques, systems, and equipment to improve fire prevention and control in the rural and remote areas of the Nation.

(e) COORDINATION.—In establishing and conducting programs under this section, the Administrator shall take full advantage of applicable technological developments made by other departments and agencies of the Federal Government, by State and local governments, and by business, industry, and nonprofit associations.

NATIONAL FIRE DATA CENTER

SEC. 9. (a) GENERAL.—The Administrator shall operate, directly or through contracts or grants, an integrated, comprehensive National Fire Data Center for the selection, analysis, publication, and dissemination of information related to the prevention, occurrence, control, and results of fires of all types. The program of such Data Center shall be designed to (1) provide an accurate nationwide analysis of the fire problem, (2) identify major problem areas, (3) assist in setting priorities, (4) determine possible solutions to problems, and (5) monitor the progress of programs to reduce fire losses. To carry out these functions, the Data Center shall gather and analyze— 15 USC 2208.

Data Center program, functions.

(1) information on the frequency, causes, spread, and extinguishment of fires;

(2) information on the number of injuries and deaths resulting from fires, including the maximum available information on the specific causes and nature of such injuries and deaths, and information on property losses;

(3) information on the occupational hazards faced by firefighters, including the causes of deaths and injuries arising, directly and indirectly, from firefighting activities;

(4) information on all types of firefighting activities, including inspection practices;

(5) technical information related to building construction, fire properties of materials, and similar information;

(6) information on fire prevention and control laws, systems, methods, techniques, and administrative structures used in foreign nations;

(7) information on the causes, behavior, and best method of control of other types of fire, including, but not limited to, forest fires, brush fires, fire underground, oil blow-out fires, and waterborne fires; and

(8) such other information and data as is deemed useful and applicable.

(b) METHODS.—In carrying out the program of the Data Center, the Administrator is authorized to—

(1) develop standardized data reporting methods;

(2) encourage and assist State, local, and other agencies, public and private, in developing and reporting information; and

(3) make full use of existing data gathering and analysis organizations, both public and private.

Information dissemination.

(c) DISSEMINATION.—The Administrator shall insure dissemination to the maximum extent possible of fire data collected and developed by the Data Center, and shall make such data, information, and analysis available in appropriate form to Federal agencies, State and local governments, private organizations, industry, business, and other interested persons.

MASTER PLANS

15 USC 2209.

SEC. 10. (a) GENERAL.—The establishment of master plans for fire prevention and control are the responsibility of the States and the political subdivisions thereof. The Administrator is authorized to encourage and assist such States and political subdivisions in such planning activities, consistent with his powers and duties under this Act.

Report to Congress.

(b) REPORT.—Four years after the date of enactment of this Act, the Secretary shall submit to the Congress a report on the establishment and effectiveness of master plans in the field of fire prevention and control throughout the Nation. Such report shall include, but need not be limited to—

(1) a summary of the extent and quality of master planning activities;

(2) a summary and evaluation of master plans that have been prepared by States and political subdivisions thereof. Such summary and evaluation shall consider, with respect to each such plan (A) the characteristics of the jurisdiction adopting it, including, but not limited to, density and distribution of population; ratio of volunteer versus paid fire services; geographic location, topography, and climate; per capita rate of death and property loss from fire; size and characteristics of political subdivisions of the governmental units thereof; and socio-economic composition; and (B) the approach to development and implementation of the master plans;

(3) an evaluation of the best approach to the development and implementation of master plans (e.g., central planning by a State agency, regionalized planning within a State coordinated by a State agency, or local planning supplemented and coordinated by a State agency);

(4) an assessment of the costs and benefits of master plans;

(5) a recommendation to Congress on whether Federal financial assistance should be authorized in order that master plans can be developed in all States; and

(6) a model master plan or plans suitable for State and local implementation.

(c) DEFINITION.—For the purposes of this section, a "master plan" is one which will result in the planning and implementation in the area involved of a general program of action for fire prevention and control. Such master plan is reasonably expected to include (1) a survey of the resources and personnel of existing fire services and an analysis of the effectiveness of the fire and building codes in such area; (2) an analysis of short and long term fire prevention and control needs in such area; (3) a plan to meet the fire prevention and control needs in such area; and (4) an estimate of cost and realistic plans for financing the implementation of the plan and operation on a continuing basis and a summary of problems that are anticipated in implementing such master plan. "Master plan."

REIMBURSEMENT FOR COSTS OF FIREFIGHTING ON FEDERAL PROPERTY

SEC. 11. (a) CLAIM.—Each fire service that engages in the fighting of a fire on property which is under the jurisdiction of the United States may file a claim with the Administrator for the amount of direct expenses and direct losses incurred by such fire service as a result of fighting such fire. The claim shall include such supporting information as the Administrator may prescribe. 15 USC 2210.

(b) DETERMINATION.—Upon receipt of a claim filed under subsection (a) of this section, the Administrator shall determine—

(1) what payments, if any, to the fire service or its parent jurisdiction, including taxes or payments in lieu of taxes, the United States has made for the support of fire services on the property in question;

(2) the extent to which the fire service incurred additional firefighting costs, over and above its normal operating costs, in connection with the fire which is the subject of the claim; and

(3) the amount, if any, of the additional costs referred to in paragraph (2) of this subsection which were not adequately covered by the payments referred to in paragraph (1) of this subsection.

(c) PAYMENT.—The Secretary shall forward the claim and a copy of the Administrator's determination under subsection (b)(3) of this section to the Secretary of the Treasury. The Secretary of the Treasury shall, upon receipt of the claim and determination, pay such fire service or its parent jurisdiction, from any moneys in the Treasury not otherwise appropriated but subject to reimbursement (from any appropriations which may be available or which may be made available for the purpose) by the Federal department or agency under whose jurisdiction the fire occurred, a sum no greater than the amount determined with respect to the claim under subsection (b)(3) of this section.

(d) ADJUDICATION.—In the case of a dispute arising in connection with a claim under this section, the Court of Claims of the United States shall have jurisdiction to adjudicate the claim and enter judgment accordingly.

REVIEW OF CODES

SEC. 12. The Administrator is authorized to review, evaluate, and suggest improvements in State and local fire prevention codes, building codes, and any relevant Federal or private codes and regulations. In evaluating any such code or codes, the Administrator shall consider the human impact of all code requirements, standards, or provisions State-local fire prevention codes, review. 15 USC 2211.

in terms of comfort and habitability for residents or employees, as well as the fire prevention and control value or potential of each such requirement, standard, or provision.

FIRE SAFETY EFFECTIVENESS STATEMENTS

15 USC 2212. SEC. 13. The Administrator is authorized to encourage owners and managers of residential multiple-unit, commercial, industrial, and transportation structures to prepare Fire Safety Effectiveness Statements, pursuant to standards, forms, rules, and regulations to be developed and issued by the Administrator.

ANNUAL CONFERENCE

15 USC 2213. SEC. 14. The Administrator is authorized to organize, or to participate in organizing, an annual conference on fire prevention and control. He may pay, in whole or in part, the cost of such conference and the expenses of some or all of the participants. All of the Nation's fire services shall be eligible to send representatives to each such conference to discuss, exchange ideas on, and participate in educational programs on new techniques in fire prevention and control. Such conferences shall be open to the public.

PUBLIC SAFETY AWARDS

15 USC 2214. SEC. 15. (a) ESTABLISHMENT.—There are hereby established two classes of honorary awards for the recognition of outstanding and distinguished service by public safety officers—

(1) the President's Award For Outstanding Public Safety Service ("President's Award"); and

(2) the Secretary's Award For Distinguished Public Safety Service ("Secretary's Award").

(b) DESCRIPTION.—(1) The President's Award shall be presented by the President of the United States to public safety officers for extraordinary valor in the line of duty or for outstanding contribution to public safety.

(2) The Secretary's Award shall be presented by the Secretary, the Secretary of Defense, or by the Attorney General to public safety officers for distinguished service in the field of public safety.

(c) SELECTION.—The Secretary, the Secretary of Defense, and the Attorney General shall advise and assist the President in the selection of individuals to whom the President's Award shall be tendered and in the course of performing such duties they shall seek and review nominations for such awards which are submitted to them by Federal, State, county, and local government officials. They shall annually transmit to the President the names of those individuals determined by them to merit the award, together with the reasons therefor. Recipients of the President's Award shall be selected by the President.

(d) LIMITATION.—(1) There shall not be presented in any one calendar year in excess of twelve President's Awards.

(2) There shall be no limitation on the number of Secretary's Awards presented.

(e) AWARD.—(1) Each President's Award shall consist of—

(A) a medal suitably inscribed, bearing such devices and emblems, and struck from such material as the Secretary of the Treasury, after consultation with the Secretary, the Secretary of Defense, and the Attorney General deems appropriate. The Secretary of the Treasury shall cause the medal to be struck and furnished to the President; and

(B) an appropriate citation.

(2) Each Secretary's Award shall consist of an appropriate citation.

(f) REGULATIONS.—The Secretary, the Secretary of Defense, and the Attorney General are authorized and directed to issue jointly such regulations as may be necessary to carry out this section.

(g) DEFINITIONS.—As used in this section, the term "public safety officer" means a person serving a public agency, with or without compensation, as— "Public safety officer."

(1) a firefighter;

(2) a law enforcement officer, including a corrections or court officer; or

(3) a civil defense officer.

ANNUAL REPORT

SEC. 16. The Secretary shall report to the Congress and the President not later than June 30 of the year following the date of enactment of this Act and each year thereafter on all activities relating to fire prevention and control, and all measures taken to implement and carry out this Act during the preceding calendar year. Such report shall include, but need not be limited to— Report to Congress and President. 15 USC 2215.

(a) a thorough appraisal, including statistical analysis, estimates, and long-term projections of the human and economic losses due to fire;

(b) a survey and summary, in such detail as is deemed advisable, of the research and technology program undertaken or sponsored pursuant to this Act;

(c) a summary of the activities of the Academy for the preceding 12 months, including, but not limited to—

(1) an explanation of the curriculum of study;

(2) a description of the standards of admission and performance;

(3) the criteria for the awarding of degrees and certificates; and

(4) a statistical compilation of the number of students attending the Academy and receiving degrees or certificates;

(d) a summary of the activities undertaken to assist the Nation's fire services;

(e) a summary of the public education programs undertaken;

(f) an analysis of the extent of participation in preparing and submitting Fire Safety Effectiveness Statements;

(g) a summary of outstanding problems confronting the administration of this Act, in order of priority;

(h) such recommendations for additional legislation as are deemed necessary or appropriate; and

(i) a summary of reviews, evaluations, and suggested improvements in State and local fire prevention and building codes, fire services, and any relevant Federal or private codes, regulations, and fire services.

AUTHORIZATION OF APPROPRIATIONS

SEC. 17. There are authorized to be appropriated to carry out the foregoing provisions of this Act, except section 11 of this Act, such sums as are necessary, not to exceed $10,000,000 for the fiscal year ending June 30, 1975, and not to exceed $15,000,000 for the fiscal year ending June 30, 1976. 15 USC 2216.

FIRE RESEARCH CENTER

SEC. 18. The Act of March 3, 1901 (15 U.S.C. 278), is amended by striking out sections 16 and 17 (as added by title I of the Fire Preven-

15 USC 278f, 278g.

tion and Control Act of 1968) and by inserting in lieu thereof the following new section:

Establishment.
15 USC 278f.

"SEC. 16. (a) There is hereby established within the Department of Commerce a Fire Research Center which shall have the mission of performing and supporting research on all aspects of fire with the aim of providing scientific and technical knowledge applicable to the prevention and control of fires. The content and priorities of the research program shall be determined in consultation with the Administrator of the National Fire Prevention and Control Administration. In implementing this section, the Secretary is authorized to conduct, directly or through contracts or grants, a fire research program, including—

"(1) basic and applied fire research for the purpose of arriving at an understanding of the fundamental processes underlying all aspects of fire. Such research shall include scientific investigations of—

"(A) the physics and chemistry of combustion processes;

"(B) the dynamics of flame ignition, flame spread, and flame extinguishment;

"(C) the composition of combustion products developed by various sources and under various environmental conditions;

"(D) the early stages of fires in buildings and other structures, structural subsystems and structural components in all other types of fires, including, but not limited to, forest fires, brush fires, fires underground, oil blowout fires, and waterborne fires, with the aim of improving early detection capability;

"(E) the behavior of fires involving all types of buildings and other structures and their contents (including mobile homes and highrise buildings, construction materials, floor and wall coverings, coatings, furnishings, and other combustible materials), and all other types of fires, including forest fires, brush fires, fires underground, oil blowout fires, and waterborne fires;

"(F) the unique fire hazards arising from the transportation and use, in industrial and professional practices, of combustible gases, fluids, and materials;

"(G) design concepts for providing increased fire safety consistent with habitability, comfort, and human impact in buildings and other structures; and

"(H) such other aspects of the fire process as may be deemed useful in pursuing the objectives of the fire research program;

"(2) research into the biological, physiological, and psychological factors affecting human victims of fire, and the performance of individual members of fire services, including—

"(A) the biological and physiological effects of toxic substances encountered in fires;

"(B) the trauma, cardiac conditions, and other hazards resulting from exposure to fire;

"(C) the development of simple and reliable tests for determining the cause of death from fires;

"(D) improved methods of providing first aid to victims of fires;

"(E) psychological and motivational characteristics of persons who engage in arson, and the prediction and cure of such behavior;

"(F) the conditions of stress encountered by firefighters, the effects of such stress, and the alleviation and reduction of such conditions; and

"(G) such other biological, psychological, and physiological effects of fire as have significance for purposes of control or prevention of fires; and

"(3) operation tests, demonstration projects, and fire investigations in support of the activities set forth in this section.

"The Secretary shall insure that the results and advances arising from the work of the research program are disseminated broadly. He shall encourage the incorporation, to the extent applicable and practicable, of such results and advances in building codes, fire codes, and other relevant codes, test methods, fire service operations and training, and standards. The Secretary is authorized to encourage and assist in the development and adoption of uniform codes, test methods, and standards aimed at reducing fire losses and costs of fire protection.

"(b) For the purposes of this section there is authorized to be appropriated not to exceed $3,500,000 for the fiscal year ending June 30, 1975 and not to exceed $4,000,000 for the fiscal year ending June 30, 1976." Appropriation.

VICTIMS OF FIRE

SEC. 19. (a) PROGRAM.—The Secretary of Health, Education, and Welfare shall establish, within the National Institutes of Health and in cooperation with the Secretary, an expanded program of research on burns, treatment of burn injuries, and rehabilitation of victims of fires. The National Institutes of Health shall— 42 USC 290a.

(1) sponsor and encourage the establishment throughout the Nation of twenty-five additional burn centers, which shall comprise separate hospital facilities providing specialized burn treatment and including research and teaching programs, and twenty-five additional burn units, which shall comprise specialized facilities in general hospitals used only for burn victims;

(2) provide training and continuing support of specialists to staff the new burn centers and burn units;

(3) sponsor and encourage the establishment of ninety burn programs in general hospitals which comprise staffs of burn injury specialists;

(4) provide special training in emergency care for burn victims;

(5) augment sponsorship of research on burns and burn treatment;

(6) administer and support a systematic program of research concerning smoke inhalation injuries; and

(7) sponsor and support other research and training programs in the treatment and rehabilitation of burn injury victims.

(b) AUTHORIZATION OF APPROPRIATION.—For purposes of this section, there are authorized to be appropriated not to exceed $5,000,000 for the fiscal year ending June 30, 1975 and not to exceed $8,000,000 for the fiscal year ending June 30, 1976.

PUBLIC ACCESS TO INFORMATION

SEC. 20. Copies of any document, report, statement, or information received or sent by the Secretary or the Administrator shall be made available to the public pursuant to the provisions of section 552 of title 5, United States Code: *Provided*, That, notwithstanding the provisions of subsection (b) of such section and of section 1905 of title 18, United States Code, the Secretary may disclose information which concerns or relates to a trade secret— 15 USC 2217.

(1) upon request, to other Federal Government departments and agencies for official use;

(2) upon request, to any committee of Congress having jurisdiction over the subject matter to which the information relates;

(3) in any judicial proceeding under a court order formulated to preserve the confidentiality of such information without impairing the proceedings; and

(4) to the public when he determines such disclosure to be necessary in order to protect health and safety after notice and opportunity for comment in writing or for discussion in closed session within fifteen days by the party to which the information pertains (if the delay resulting from such notice and opportunity for comment would not be detrimental to health and safety).

ADMINISTRATIVE PROVISIONS

15 USC 2218.

SEC. 21. (a) ASSISTANCE.—Each department, agency, and instrumentality of the executive branch of the Federal Government and each independent regulatory agency of the United States is authorized and directed to furnish to the Administrator, upon written request, on a reimbursable basis or otherwise, such assistance as the Administrator deems necessary to carry out his functions and duties pursuant to this Act, including, but not limited to, transfer of personnel with their consent and without prejudice to their position and ratings.

(b) POWERS.—With respect to this Act, the Administrator is authorized to—

(1) enter into, without regard to section 3709 of the Revised Statutes, as amended (41 U.S.C. 5) such contracts, grants, leases, cooperative agreements, or other transactions as may be necessary to carry out the provisions of this Act;

(2) accept gifts and voluntary and uncompensated services, notwithstanding the provisions of section 3679 of the Revised Statutes (31 U.S.C. 665(b));

(3) purchase, lease, or otherwise acquire, own, hold, improve, use, or deal in and with any property (real, personal, or mixed, tangible or intangible), or interest in property, wherever situated; and sell, convey, mortgage, pledge, lease, exchange, or otherwise dispose of property and assets;

(4) procure temporary and intermittent services to the same extent as is authorized under section 3109 of title 5, United States Code, but at rates not to exceed $100 a day for qualified experts; and

(5) establish such rules, regulations, and procedures as are necessary to carry out the provisions of this Act.

Comptroller General, access to records.

(c) AUDIT.—The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the recipients of contracts, grants, or other forms of assistance that are pertinent to its activities under this Act for the purpose of audit or to determine if a proposed activity is in the public interest.

(d) INVENTIONS AND DISCOVERIES.—All property rights with respect to inventions and discoveries, which are made in the course of or under contract with any government agency pursuant to this Act, shall be subject to the basic policies set forth in the President's Statement of Government Patent Policy issued August 23, 1971, or such revisions of that statement of policy as may subsequently be promulgated and published in the Federal Register.

Publication in Federal Register.

(e) COORDINATION.—To the extent practicable, the Administrator shall utilize existing programs, data, information, and facilities already available in other Federal Government departments and agencies and, where appropriate, existing research organizations, centers,

and universities. The Administrator shall provide liaison at an appropriate organizational level to assure coordination of his activities with State and local government agencies, departments, bureaus, or offices concerned with any matter related to programs of fire prevention and control and with private and other Federal organizations and offices so concerned.

ASSISTANCE TO CONSUMER PRODUCT SAFETY COMMISSION

SEC. 22. Upon request, the Administrator shall assist the Consumer Product Safety Commission in the development of fire safety standards or codes for consumer products, as defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.). 15 USC 2219.

CONFORMING AMENDMENTS

SEC. 23. Section 12 of the Act of February 14, 1903, as amended (15 U.S.C. 1511), is amended to read as follows:

"BUREAUS IN DEPARTMENT

"SEC. 12. The following named bureaus, administrations, services, offices, and programs of the public service, and all that pertains thereto, shall be under the jurisdiction and subject to the control of the Secretary of Commerce:

"(a) National Oceanic and Atmospheric Administration;
"(b) United States Travel Service;
"(c) Maritime Administration;
"(d) National Bureau of Standards;
"(e) Patent Office;
"(f) Bureau of the Census;
"(g) National Fire Prevention and Control Administration; and
"(h) such other bureaus or other organizational units as the Secretary of Commerce may from time to time establish in accordance with law."

Approved October 29, 1974.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 93-795 accompanying H.R. 11989 (Comm. on Science and Astronautics) and Nos. 93-1277 and 93-1413 (Committees of Conference).
SENATE REPORTS: No. 93-470 (Comm. on Commerce) and Nos. 93-1088 and 93-1211 (Committees of Conference).
CONGRESSIONAL RECORD:
Vol. 119 (1973): Nov. 2, considered and passed Senate.
Vol. 120 (1974): Apr. 25, 29, considered and passed House, amended, in lieu of H.R. 11989.
Oct. 9, House agreed to conference report.
Oct. 10, Senate agreed to conference report.
WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS:
Vol. 10, No. 44 (1974): Oct. 29, Presidential statement.

APPENDIX I

CHARTER OF THE ADVISORY COMMITTEE ON FIRE TRAINING AND EDUCATION

Establishment:

The Secretary of Commerce, having determined that it is in the public interest, has established the Advisory Committee on Fire Training and Education as authorized by the Federal Fire Prevention and Control Act of 1974, Public Law 93-498, §7(k), 88 Stat. 1539, and pursuant to the Federal Advisory Committee Act, 4 U.S.C., App. I.

Objectives and Duties:

1. The Committee shall inquire into and make recommendations regarding the desirability of establishing a mechanism for accreditation of fire training and education programs and courses, and the role which the Academy should play if such a mechanism is recommended.

2. The Committee shall submit to the Administrator of the National Fire Prevention and Control Administration, within two years after its appointment, a full and complete report of its findings and recommendations.

3. The Committee will function solely as an advisory body and comply fully with the provisions of the Federal Advisory Committee Act.

Members and Chairman:

1. The Advisory Committee shall consist of the Superintendent as Chairman and eighteen (18) other members appointed by the Administrator of the National Fire Prevention and Control Administration from among individuals and organizations possessing special knowledge and experience in the field of fire training and education or related fields. They will be chosen from such individuals and organizations as will insure a balanced representation of interests on the Committee.

2. The members of the Advisory Committee will be appointed for two-year terms and serve at the discretion of the Administrator.

Administrative Provisions:

1. The Committee shall report to the Administrator of the National Fire Prevention and Control Administration; all staff support shall be provided by the Administrator.

2. The Committee shall meet at least quarterly and at such other times as may be determined by the Chairman.

3. Members of the Committee will not be compensated for their services, but will, upon request, be reimbursed for travel expenses and subsistence. The estimated annual operating cost of the Committee is $130,000. This includes one work-year of staff support.

4. With the prior approval of the Administrator, NFPCA, subcommittees of the parent committee may be established provided their membership is composed exclusively of members of the parent committee.

Duration:

The Committee shall terminate upon submission of its full report to the Administrator of the National Fire Prevention and Control Administration or no later than two years after the date of this Charter.

APPENDIX J

THE CONTINUING EDUCATION UNIT

(Reprinted with permission)

THE CONTINUING EDUCATION UNIT

CRITERIA AND GUIDELINES

prepared by

THE NATIONAL TASK FORCE ON THE
CONTINUING EDUCATION UNIT

REVISED EDITION

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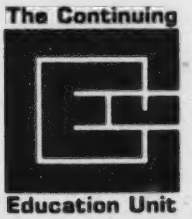

THE CONTINUING EDUCATION UNIT

One Continuing Education Unit is

TEN CONTACT HOURS OF PARTICIPATION IN AN ORGANIZED CONTINUING EDUCATION EXPERIENCE UNDER RESPONSIBLE SPONSORSHIP, CAPABLE DIRECTION AND QUALIFIED INSTRUCTION

FOREWORD

Noncredit continuing education has been the fastest growing segment of education since the close of World War II. The upsurge in noncredit educational offerings can be traced directly to: (1) the rapid expansion of knowledge, and (2) the obsolescence of its long term utility. These two factors have contributed substantially to the demand for noncredit continuing education directed toward the rehabilitation and retraining of the existing worker force. Adults in general, and especially those in the professional and technical occupations, find it increasingly necessary to update and upgrade their knowledge through continuing education. This effort begins shortly after the completion of their formal education and continues throughout their working years. Increasingly, more and more education for specific careers and job functions has to be obtained after graduation and continues throughout an individual's productive life.

Millions of people participate each year in evening classes, short courses, workshops, seminars, conferences, institutes and other forms of noncredit continuing education. Professional societies and organizations develop programs and award certificates to encourage members to update their knowledge and skills. In many occupational fields evidence of continued learning is required for maintenance of membership or certification, for occupational advancement and for recognition of personal and professional development.

Individual adult participants in noncredit continuing education have found it difficult to accumulate, update and transfer a record of their educational experiences. Employers, professional groups, licensing agencies and others who routinely examine and evaluate individual accomplishments have experienced a similar need for uniformity in combining noncredit educational activities into a measurable record.

Sponsors of continuing education activities find it increasingly important to manage and account for human and financial

resources committed to noncredit programs in terms of a consistent unit of output. Institutions of higher education have long been able to account for educational output in credit programs through the use of semester or quarter credit hours and full-time equivalent student enrollments. A parallel system is now needed to measure and record institutional output of noncredit educational activities — information seldom included in institutional reports of educational activities.

In an attempt to meet these needs, thirty-four national organizations met in 1968 to explore the feasibility of a uniform unit of measurement. A thirteen-member Task Force was appointed to delineate and define the unit. The Task Force developed the concept of the continuing education unit, published a preliminary "Interim Report," sponsored one-year pilot projects in fourteen institutions of higher education, and encouraged further research and field testing. Refined and tested by these processes, these criteria and guidelines can now be recommended as a basis for implementing the continuing education unit as a uniform national standard of measurement for noncredit continuing education.

Members of the National Task Force on the Continuing Education Unit, representing a cross section of interests and organizations in continuing education, have attended twenty-four Task Force meetings over a period of six years. Included in these meetings was a one-week working conference used to develop the CEU concept and a preliminary outline for the criteria and guidelines. A debt of gratitude is due to those diligent men and women who have devoted over two thousand man-hours of professional talent to the development and implementation of the continuing education unit.

To the hundreds of persons and organizations involved in testing the CEU concept, to those who appeared before the Task Force to offer suggestions for improvement, and to those writing letters offering critical review and comments, the Task Force is indebted. The work of the Task Force has been made easier by the interest and involvement of so many individuals who cannot be given proper credit in this foreword. Our hope is

that many of the thirty million people who enroll annually in noncredit education programs will be the ultimate beneficiaries.

One additional observation is pertinent. The cross section of interests represented by the Task Force members from business, industry, labor, professional associations, government, and education—public and private, profit and non-profit—has been able to address a national problem by conceiving and developing a unique concept; allowing time for testing; and developing criteria and guidelines for national implementation in a variety of educational situations.

It has been my privilege to serve as chairman of the National Task Force on the CEU for the past six years and I wish to thank the members, individually and as a working group, for their dedicated service and contributions to the field of continuing education.

William L. Turner
Chairman, The National Task Force
on the Continuing Education Unit

Raleigh, North Carolina
May 1, 1974

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PURPOSES

The continuing education unit (CEU) has been designed as a uniform unit of measurement to facilitate the accumulation and exchange of standardized information about individual participation in noncredit continuing education. The CEU is applicable whether information is transmitted from one person to another, from one institution to another, from individual to organization, from employee to employer, from one area of the country to another, or from one time period to another. The CEU may be used for the quantitative measurement, recording, reporting, accumulation, transfer and recognition of participation by adults in noncredit continuing education activities.

The CEU is intended to serve all interests in noncredit continuing education, whether public or private, and whether individual, institutional, organizational, governmental or societal. It can be used to measure all levels of noncredit continuing education without regard to age of participants, subject matter, program format or instructional methodology. The CEU permits the individual who desires additional educational experience to look to many sources of continuing education, to select from many formats common to the field while accumulating a uniform record available for future reference.

Specific Objectives

With the establishment and widespread use of the CEU as a uniform and nationally accepted unit of measurement applicable to noncredit continuing education, the major objectives that can be fulfilled are:

1. To establish permanent records for individual participants for accumulating, updating and transferring information concerning noncredit continuing education experiences.
2. To provide a uniform system for accumulating data at the institutional or organizational level to assist in

program planning and development and in administration and fiscal management.

3. To establish a national system of measurement to facilitate the collection of data on a national basis and provide valid statistical information necessary for legislative action and public policy determination relating to noncredit adult and continuing education activities.

Flexibility of CEU

Variety is one of the recognized strengths of noncredit continuing education. The CEU concept is designed to sustain that variety. The CEU is to be applied only *after* content, format and methodology have been determined. When applied in this manner, the CEU does not lead to stereotypes in terms of the program length, methods, or formats used in meeting educational objectives.

DEFINITION

ONE CONTINUING EDUCATION UNIT IS DEFINED AS:

TEN CONTACT HOURS OF PARTICIPATION . . .

IN AN ORGANIZED CONTINUING EDUCATION EXPERIENCE . . .

UNDER RESPONSIBLE SPONSORSHIP . . .

CAPABLE DIRECTION . . .

AND QUALIFIED INSTRUCTION .

Each element included in the definition of the continuing education unit is an integral part of the larger concept of developing an educational experience of sufficient merit to be documented in permanent form on the record of the individual participant.

TEN CONTACT HOURS OF PARTICIPATION . . .

The contact hour is defined as a typical fifty-minute classroom instructional session, or its equivalent. Ten instructional contact hours are required for one CEU. The number of instructional contact hours is readily determined in the formal classroom situation. In more informal formats, the director or coordinator of the program must exercise judgment in determining the equivalent number of instructional hours required to achieve the educational objectives. In still less structured activities, the director must determine whether or not the individual participation and educational benefits derived from a noncredit learning experience are of sufficient merit for CEU to be awarded. (See page 15, Determining the Number of Units.)

IN AN ORGANIZED CONTINUING EDUCATION EXPERIENCE . . .

An organized educational experience presumes there has been planning to meet a specific need. The essential elements of such planning include the determination of the program's educational objectives in terms of: (a) the clientele to be served; (b) the new skill or understanding to be realized through the content or subject matter to be covered; and (c) the program format and instructional methodology to be employed.

Adequate and properly responsive program planning requires interaction between administrative personnel of the sponsoring organization, the instructor or educational leaders responsible for the learning experience, and representatives from the clientele group to be served. Additional inputs into the planning process by knowledgeable and interested persons may further strengthen the educational enterprise.

UNDER RESPONSIBLE SPONSORSHIP . . .

The sponsoring organization that awards CEU may be an educational institution, a professional association or a business or governmental organization. The sponsor must assume administrative responsibility for the program. This responsibility includes the assignment of direct supervision of the activity to a professionally capable program director or educational administrator and the maintenance of a permanent record system. The reputation and organizational integrity of the sponsor are reflected in the quality of the educational experience which is presented.

CAPABLE DIRECTION . . .

The elements of capable direction include: (a) professional educational leadership in program planning and development; (b) selection of the most effective educational format for the intended purpose and objectives; (c) assignment of qualified instructional staff; (d) adequate program management and administration; and (e) the design and implementation of evaluation techniques applicable to both individual participants and the total program.

AND QUALIFIED INSTRUCTION.

The development of a systematic process leading to specified educational objectives requires the selection of an instructional staff that has the following qualifications: (a) competence in the subject matter (may be evidenced by experience in which command of the subject matter is recognized by the individual's peers, by formal education or training, or by demonstrated knowledge through publication in professional journals or appropriate media); (b) ability to transmit the educational content to the participants; (c) understanding of the program objectives; and (d) knowledge and skill in the instructional methodology and learning processes to be employed.

USE OF THE CONTINUING EDUCATION UNIT

General Application

The CEU may be applied to qualified noncredit continuing education learning experiences regardless of the teaching-learning format, duration of program, source of sponsorship, subject matter, level, audience or purpose. Therefore, the CEU applies to most well-planned continuing education programs with equal facility although they may be as varied in their origins and objectives as they are diverse in their choice of subject matter and the teaching techniques employed.

Sources of Sponsorship

CEU may be awarded by institutions and organizations that meet the administrative criteria set forth below. Opportunities now may become available for individuals to participate in and receive comparable recognition from a wide variety of continuing education programs offered by private, governmental and organizational sponsors in addition to those available from educational institutions. The CEU permits records to be generated by these sponsors comparable to those of traditionally recognized institutional sources of sponsorship.

Convenience of Measurement

The ten-hour CEU is decimally related to the instructional contact hour, the most common module of educational experience (see section on Determining the Number of Units). Therefore, the CEU has the advantage of being computed and recorded directly and simply for all formats and durations of continuing education programing wherever the number of classroom hours of instruction, or their equivalent in other formats, can be determined.

National Standard of Measurement

A nationally accepted uniform unit also serves to reduce the confusion and fragmentation that exists among the many highly individualized systems of recognizing, recording and rewarding individual effort in noncredit continuing education. With forty or more differing, and often incompatible, systems known to exist, a nationally recognized and standardized measure for continuing education is long overdue.

Institutional Data. The CEU is designed to provide not only a record for the individual participant but also a method of measuring the aggregate amount of continuing education activity sponsored by an institution or organization over any given period of operation. There are distinct advantages for the sponsoring institution or organization to be able to quantify and summarize its total noncredit continuing education efforts. The accumulation of CEU data provides information for budgeting, financing, auditing and program planning with comparable and uniform reporting from year to year.

National Data. In addition to individual and organizational records, the CEU provides more precise and comparable data which can be compiled through state and national statistical surveys. These data will provide essential background information to assist in policy formulation and priority determination. They will also permit evaluations of the extent and character of noncredit continuing education by such categories as subject areas, program formats, sponsoring organizations, clientele groups, or geographical areas. Previous reports have failed to produce comparable data and trends have been difficult to establish due to the lack of any nationally accepted unit for the uniform measurement and reporting of noncredit continuing education activity.

Educational Planning for the Individual

The availability of comparable permanent records and official recognition makes the pursuit of knowledge through continuing education more attractive and satisfying as a way of personal and professional development. This recognized standard of

measurement encourages adults to marshal and utilize a variety of noncredit learning experiences and resources to serve their immediate needs. For example, individuals may use personal records reported in CEU to meet requirements for:

1. Maintenance or improvement of professional competence.
2. Documentation of continuing qualifications for licensure, certification or registration.
3. Evidence of personal and vocational growth and adjustment to meet changing career demands.
4. Preparation for a new career by personal preference or as caused by the pressure of individual or technological obsolescence.
5. Demonstration of a conscious and persistent effort toward personal development.

A record of CEU provides a framework within which individuals can develop and achieve appropriate long-range educational goals through a variety of available options. Progress toward such goals, at the individual's own pace and possibly planned over a number of years of adult life, can be demonstrated and documented in terms of the record of CEU earned.

The absence of a uniform and cumulative record of continuing education activity, whether applicable to the sponsors of continuing education or to the individuals they serve, has usually resulted in the establishment of very narrowly defined goals and short-term educational objectives. It has seldom been possible for an individual or an organization to plan long-range comprehensive programs of educational or professional development that are sequentially planned and relevant to contemporary needs by means of any alternative other than college credit and degree programs.

The CEU affords the organizational or institutional sponsor, as well as the individual being served, an opportunity to plan educational progress from one level of competency or one block of information to another. This process may extend over several

years, often following a given individual through occupational moves and increasing levels of responsibility. The encouragement provided by meeting both long-range objectives and sequential design in continuing education programs should result in the initiation of an increasing number of noncredit curricula that serve significant individual, professional, organizational and societal goals.

The informal and flexible character of noncredit educational programs should not be altered by the application of the CEU. The ability to plan and initiate new programs or to reorganize current programs quickly, without undue organizational formality, to meet immediate and changing educational needs must continue to be the dominant characteristic of noncredit continuing education.

CRITERIA FOR AWARDING CONTINUING EDUCATION UNITS

The following administrative and program criteria are the minimum essential requirements applicable to each activity for which continuing education units are to be awarded. CEU may be awarded by a variety of institutions or organizations that are able and willing to fulfill the administrative and program criteria as specified in these guidelines.

Categories of institutions and organizations potentially capable of serving as sponsors of continuing education, and of awarding CEU, include: (a) colleges and universities; (b) technical institutes; (c) vocational-technical schools; (d) trade and industrial associations; (e) professional and technical societies; (f) educational units of governmental agencies or the armed forces; (g) educational units of businesses, industries or labor organizations; (h) health services organizations; (i) proprietary educational organizations; or (j) other organizations providing noncredit continuing education.

Administrative Criteria

The following criteria apply to program sponsors who propose to award and record CEU for individuals participating in their continuing education programs:

Organization. The sponsoring organization must have an identifiable educational arm with designated professional staff empowered to administer and coordinate an organized schedule of continuing education programs.

Responsibility and Control. The sponsoring organization, through its educational arm, must maintain administrative control of all program elements to assure that both the immediate educational objectives and these criteria are met.

For programs jointly sponsored by more than one organization, a decision must be made in the planning stage concerning

which organization will record and report CEU. In no instance should there be a duplication in recording or reporting CEU.

Facilities. The sponsoring organization must provide or arrange for appropriate educational facilities, library and reference materials and all necessary instructional aids and equipment consistent with the educational content, format and objectives of each learning experience.

Mainentance and Availability of Records. A permanent individual record of participation must be maintained by the sponsoring organization and made readily available to each participant upon request. (For further discussion, see page 18, Permanent Records.)

Program Criteria

The following criteria are to be met for *each* noncredit continuing education activity before CEU may be awarded to participants and recorded on individual records:

Definition. The educational activity fulfills these elements in the definition of the CEU: an organized continuing education experience . . . responsible sponsorship . . . capable direction . . . qualified instruction. (See pages 3, 4 and 5 for a detailed discussion of the definition.)

Planning. The program or activity is planned in response to the educational needs of a target population or clientele group. This planning includes the opportunity for input by representatives of the immediate clientele group, as well as by other knowledgeable individuals having content expertise and an appreciation of the educational ojectives to be met.

Purpose. A clear statement of rationale, purposes and goals is prepared for each educational activity prior to the initiation of the program.

Instruction. Qualified instructional personnel are directly involved in conducting the educational activity. (See page 5, Qualified Instruction.)

Performance. Specific performance requirements for the award of CEU to participants are established prior to the

offering of the program. (See page 17, Satisfactory Completion.)

Registration. Participant registration includes sufficient detail to provide the necessary information for a permanent record of individual participation. (See page 18, Permanent Records.)

Program Evaluation. Evaluation procedures determined during the planning process are used to measure the effectiveness of the program design and operation. (See page 19, Evaluation)

Records. Program administration will include a system for verification of satisfactory completion of the activity by each participant (see discussion of Registration immediately above) and for providing an approved list of those awarded CEU to the office responsible for preparing and maintaining permanent records for individual participants.

Limitations on Awarding CEU

Following are examples of types of activities for which CEU *are not awarded* to individual participants:

Credit Programs. CEU are not to be awarded to an individual for any program or course for which that individual is awarded academic credit, either secondary or collegiate.

High School Equivalency. Programs leading to high school equivalency certificates or diplomas do not qualify for the awarding of CEU.

Orientation Programs. Educational programs which deal with such internal topics as indoctrination in rights, benefits and responsibilities; organizational structure; on-the-job methods, processes or procedures; do not qualify for the awarding of CEU.

Committee Meetings. Committee activities do not qualify for the awarding of CEU.

Policy Assignments. Conferences, delegate assemblies, or similar meetings for policy-making purposes do not qualify for CEU.

Meetings and Conventions. Meetings and conventions of societies and associations do not qualify, *per se,* as continuing education. However, educational activities programmed independently and held concurrently with these meetings may meet the criteria for awarding CEU.

Mass Media Programs. Participation in programs delivered through the media (e.g., television, radio, newspapers) does not merit the award of CEU unless these presentations are an integral part of an educational program which qualifies under these criteria and guidelines.

Entertainment and Recreation. Attendance at lecture series, cultural performances, entertainment or recreational meetings or activities, and participation in travel groups do not qualify for CEU unless these activities are an integral part of a larger educational program.

Work Experience. On-the-job training, apprenticeships and other work experiences do not qualify for the award of CEU unless structured as part of a planned educational experience which fulfills these program criteria.

Individual Scholarship. The independent writing of articles or research reports or the presentation of papers outside a planned educational program does not qualify the individual for the award of CEU.

Self-Directed Studies. Individual, self-directed studies or other forms of independent learning experiences which are not subject to later verification by testing for the acquisition of cognitive or affective skills do not qualify for the awarding of CEU.

Association Membership and Certification Programs. Non-educational activities of associations and professional societies, which may otherwise be used to qualify for professional and occupational group membership or certification, are *not* eligible for the awarding of CEU. Examples of such activities include: (a) membership or service in a professional, occupational or other society or organization; (b) attendance at annual, periodic or special meetings, conventions, conferences, rallies and retreats; (c) writing or presentation of articles or research papers;

(d) teaching or other program assignments; or (e) self-directed reading or study. However, organizations that choose to recognize these activities for purposes of membership or certification may do so by using their own "service," "professional," or other units of measurement separate and apart from CEU.

OPERATIONAL GUIDELINES

A conservative approach is appropriate when an institution or organization decides to award CEU for its continuing education programs. Until experience has been gained, only those programs which clearly qualify for the awarding of units should be approved for CEU. Continuing education offerings that may be borderline in meeting program criteria should be considered carefully in terms of whether or not CEU apply. This may be done with more insight and uniformity after experience has been gained with an initial group of activities that clearly qualify for the awarding of CEU.

Determining the Number of Units

One continuing education unit (CEU) is to be awarded for each ten contact hours of instruction, or the equivalent, included in the educational activity. The number of contact hours and appropriate CEU must be determined *prior* to the beginning of the program, but only after the objectives, content, format, methods of instruction and program schedule have been established. The decision to award CEU is not to be made after the offering of the program.

When unforeseen circumstances require a significant alteration in the program schedule, an appropriate adjustment in the number of CEU may be recommended by the director or coordinator of the program.

Responsibility for the determination of the number of units to be assigned rests with the director of the educational office that administers the program. Assistance or recommendations from others more intimately concerned with the specific program are desirable in making this determination. The accuracy and consistency with which CEU are assigned depends on the skill and professional commitment of the director in assessing each learning experience.

In the conventional classroom situation the contact hour relates to the instructional hour that is normally a minimum of fifty minutes in length. In other more flexible formats clock hours may be a more appropriate measure. In either case, only the number of complete instructional hours should be considered in assigning CEU. For example, for a program with 17 contact hours, 1.7 CEU are assigned; likewise for 17.50 or 17.75 hours, 1.7 units are assigned.

Programs involving less than ten contact hours of instruction (less than one CEU) should be evaluated very carefully before fractional CEU are awarded to the participants. Often, these shorter programs are not adequately planned to meet all program criteria.

In calculating the contact hours involved in an educational activity, the following items may be included:

1. Classroom or meeting session hours with direct participation between the learner and lecturer or discussion leader are counted as contact hours.
2. Laboratory sessions, clinical experiences, field trips and activities using nontraditional methods of instruction (such as independent study, directed reading or correspondence courses) may be awarded CEU but the contact hours must be based on the equivalent instructional class hours as determined by the director of the program.

In noncredit continuing education programs, time devoted to the following and similar types of activities *will not be included* when calculating contact hours and CEU:

1. Meeting time devoted to business or committee activities;
2. Meeting time devoted to announcements, welcoming speeches or organizational reports;
3. Time for study, assigned reading, reports, written assignments and other related activities outside of the class or meeting schedule;

4. Scheduled time allocated to social activities, coffee hours, luncheons, dinners, etc. (Luncheon or dinner presentations which are an integral part of the educational experience may be included.)

When the appropriate number of instructional or contact hours have been determined, CEU are assigned on the basis of one unit for each ten contact hours, and one-tenth unit for each additional full contact hour.

Satisfactory Completion

When activities have been approved for the awarding of CEU and when the number of units has been determined, only those individuals who satisfactorily complete the activity will receive CEU. Satisfactory completion will be determined by the program director or instructor using the criteria for completion developed by the planning group for the program or activity.

Satisfactory completion for some activities will require evaluation of the performance of the individual participant. This evaluation may take the form of a demonstration or actual performance involving the skill or information acquired, it may involve a project or written report; it may be limited to an oral or written test or examination over the material to be mastered, or it may require other evidence of satisfactory completion.

When participants are evaluated in any of these ways, the individual's permanent record may carry the performance evaluation, either in terms of a traditional letter grade, in terms of a numerical grade, in terms of a pass-fail grade, or by other designations. Note, however, that a failing mark should not be entered on the record of the individual participant since only those individuals successfully completing a program should receive CEU. For individuals failing to qualify for CEU, such information should be maintained in the sponsor's files relating to that activity for future reference.

For programs where a performance evaluation of the participants is not deemed necessary, attendance and participation as determined by the planning group or program director may be used as the requirement for satisfactory completion of the activity. If attendance is the only criterion for satisfactory completion, then high minimum attendance

requirements should be established (e.g., attendance during not less than eighty percent of the instructional hours) and some method of verifying the attendance of individual participants must be utilized. Information and records substantiating satisfactory attendance and participation provide essential backup in support of the CEU awarded to individuals.

A designated official of the sponsoring institution or organization, usually the program director or the instructor, must verify and report that each individual has (or has not) met the specified completion requirements and is to be awarded CEU. Individual permanent records are to be established indicating the CEU awarded to each participant. Individual permanent records are not to be initiated for participants who are not awarded CEU.

Individuals participating in continuing education activities may not recognize the potential value of a record of their participation; therefore, the decision should not be left to the individual as to whether or not the appropriate units are recorded. Each participant completing the educational activity should be awarded CEU if anyone participating in the activity is awarded CEU.

Permanent Records

The sponsoring institution or organization is responsible for establishing and maintaining a record of all CEU awarded to individual participants. Cumulative records for each individual participant are to be available on a permanent basis and are to be issued as an official statement or transcript upon the request of the participant (although a nominal transcript or transfer fee may be assessed).

Records of each continuing education activity should be available from the sponsoring institution or organization describing as clearly as possible the audience, purposes, format, content, duration, teaching staff, course or experience prerequisites, and level of instruction so valid judgments concerning the educational experience can be made by the recipient of the record. The information which *must* be included on all transcripts or official statements is as follows:

1. Name and address of the awarding organization or institution.

2. Name of the individual participant.
3. Social Security number of the individual participant.
4. Title of the program or activity (the title should be as descriptive as possible).
5. Completion date of the program or activity.
6. Number of continuing education units awarded.

Items of information which may be recorded and retained by the sponsoring organization include:

1. A brief description of the program or activity giving some indication of content, level, objectives and format (should be retained permanently in the sponsor's files).
2. Evaluation of individual performance, if available.
3. Instructors utilized in the activity.
4. Location of the program (city or facility).
5. Cooperating organization--company, agency, association or institution.
6. Additional personal information about the participant (address, date of birth, educational background, employment status, program status, etc.).

Program Quality

Since program criteria set forth for CEU must be applied to each approved program or activity, the qualitative aspects of CEU programs are constantly under review. Representatives of the target audience provide inputs during the program planning process to insure the suitability of the subject matter to the level of application. The changing needs of audiences are thus readily transmitted to CEU program sponsors to facilitate program revision and updating. The inability of a program sponsor to adjust to changing needs of clientele or user groups results in decreased acceptability for programs offered.

Sponsor integrity, therefore, is subject to constant review when CEU criteria are fully met. Planning, administration, presentation and evaluation functions must be continuing concerns of both program sponsors and user groups. Increased

responsibility for planning and evaluation must be assumed by user groups if CEU programs are to be fully relevant and useful.

Proper program planning provides opportunities for qualitative checks by user groups to determine that the level and scope of the instructional content is consistent with the qualifications of the user group (participants), and is properly designed to fulfill the educational needs and objectives of the participants.

Evaluation

Methods of evaluation to determine effectiveness of noncredit continuing education should be developed and implemented as an integral part of each program. Without an initial statement of specific objectives for each program, it is difficult, if not impossible, to ascertain that desired goals have been attained. Program objectives developed during the planning process may include, but are not limited to:

1. Changes in the attitude and approach of the learner to the solution of problems;
2. Presentation of new knowledge or updating obsolete information in specific content areas;
3. The introduction to and/or mastery of specific skills and techniques;
4. Improvement in the selective responses of the learner.

Both immediate and long-range analysis of each program and of student achievement by the program sponsor is essential for maintaining effectiveness of future programs. Innovative approaches to accomplishing evaluation are encouraged. Sponsors, as well as students engaged in noncredit programs, should be encouraged through appropriate orientation to accept evaluation as an essential element in noncredit programs.

Group indices will usually suffice to indicate the effectiveness of the educational effort, but provision should be made for recording evaluative indices for individual participants whenever appropriate.

USING THE CONTINUING EDUCATION UNIT FOR DATA COLLECTION

The continuing education unit not only provides a record for the individual participant but is also a measure that can be used by the institution or organization to accumulate data. Thus, the CEU is a measure of the productivity of the total noncredit continuing education activity of the organization. In this manner the reporting of CEU can provide vital information on an institution's educational effort for more accurate fiscal and program planning.

In addition to accumulated institutional records, the further compilation of statistics at state or national levels will provide uniform, comparable data which have not been available heretofore due to the lack of a nationally accepted unit of measurement.

Computation of CEU for Institutional Use

Data on the total participation in a single activity may be obtained by multiplying the number of CEU applicable to the individual participant by the total number of participants in attendance. For example, a program in which 2.5 CEU are awarded to each participant and attended by 45 individuals would have a cumulative total of 112.5 CEU for the activity. In this way, data can be accumulated for a related series of programs, or for all noncredit activities over any selected period of time.

Separate calculations of total participation may be made for other noncredit continuing education activities which do not meet all of the criteria necessary for awarding individual CEU but which are needed internally for fiscal or program planning purposes. These data should be maintained and reported separately for administrative use only. Information on these programs should not relate to CEU records or performance of individual participants.

DEVELOPMENT OF THE CONTINUING EDUCATION UNIT

The continuing education unit had its beginnings early in 1968 during preliminary discussions among Edward H. Cox, E. I. duPont de Nemours and Company; Paul J. Grogan, University of Wisconsin; William L. Turner, North Carolina State University; and John Conners, Martin Marietta Corporation. On March 15, 1968, Turner and Grogan asked the National University Extension Association Board of Directors to appoint a "joint committee with industry, government agencies and professional associations" to study "(a) the definition of a unit of extension credit or other academic currency, and (b) the development of criteria and formats by which these credits could be earned."

On July 1 and 2 of that year, a National Planning Conference on the Feasibility of a Uniform Crediting and Certification System for Continuing Education, cosponsored with NUEA by the U.S. Office of Education, U.S. Civil Service Commission and American Association of Collegiate Registrars and Admissions Officers, was held in Washington, D.C.

The purpose of this conference was to determine the level of interest the participating associations had in the development of a uniform unit to measure noncredit continuing education. The thirty-four national organizations, from education, government, business, labor and the professions, represented at the conference were known previously to have expressed an interest in one aspect or another of identifying, measuring and recognizing individual effort in continuing education.

The interest and sense of urgency for a concerted national movement expressed during these two days resulted in the creation of a National Task Force to determine the feasibility of a uniform unit of measurement and to develop a proposal for such a unit. The organizations represented at the National Planning Conference and the members appointed and subsequently serving on the National Task Force are listed on pages of this booklet.

During the past few years, several organizations and institutions have initiated or have studied some system of measurement and awards, with any one system having little or no relationship to any others. A uniform nationally accepted unit was needed to reduce the confusion and fragmentation inherent in the use of a variety of systems for recording and reporting continuing education activities.

After deliberating at a series of work sessions over a period of two years, the National Task Force not only agreed on the feasibility of a uniform unit but developed the concept and defined the Continuing Education Unit to the point where it was ready to present to the professional field of continuing education for reaction and testing in actual practice. An Interim Statement[1] was published by the National Task Force in 1970, and this brief statement has been the basis for the subsequent application of the CEU in a variety of situations.

The Interim Statement called for reaction and suggestions from the field to the National Task Force so the guidelines could be adjusted to field applications. A minimum number of suggestions was received and none of these gave indication of the need for any substantive change in the concept as it was presented. The present guidelines, therefore, incorporate essentially the same concepts and criteria as those outlined in the Interim Statement.

The Interim Statement also called for the initiation of a pilot project to test the recommendations made by the Task Force in applying the CEU. Since the member institutions of the National University Extension Association offer a wide variety of noncredit continuing education, an invitation was issued at a meeting of the Executive Committee of the Division of Conferences and Institutes of NUEA for volunteers to participate in a one-year pilot project. The response was enthusiastic and most of the members of the committee indicated that their institutions would be willing to participate.

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[1] "The Continuing Education Unit – A Uniform Unit of Measurement for Non-Credit Continuing Education Programs," An Iterim Statement of the National Task Force, National University Extension Association, Suite 360, One Dupont Circle, Washington, D.C., 20036, 1970.

With this nucleus of conference and institute directors along with a few additional program directors who were informed about the pilot project, an orientation meeting involving representatives from twenty-one institutions met in July, 1970, in Washington. No attempt was made to inform all members of NUEA or to involve other institutions or organizations in this pilot run since only a limited number of institutions could be coordinated during the project. The orientation session, based on the draft of the Interim Statement then available, detailed the application and reporting requirements which included evaluation statements from the program directors, instructors and participants. The pilot project was coordinated by Keith E. Glancy, Johns Hopkins University.

Of those institutions represented, fourteen were ultimately able to cooperate during the 1970-71 school year in submitting reports on those activities to which CEU were applied.[2] This sample of over 500 noncredit continuing education activities involving more than 28,000 individual registrations provided a fair selection of the major types of programs offered by universities: classes, intensive courses, workshops and conferences. In addition, a few less universal types were included in the reports: correspondence courses, lecture series, and living room seminars. A summary report of the pilot project was published by the NUEA Washington Office.[3]

While the recommendations growing out of the pilot project suggested additional interpretation, clarification and examples, no changes in basic concepts were indicated. Subsequently the Interim Statement was used at other institutions as the basis for the initiation of additional application of the CEU.

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[2] The institutions cooperating in the pilot project during the 1970-71 academic year were: University of California at Los Angeles, University of Illinois, Indiana University, University of Iowa, University of Michigan, University of Minnesota, University of Missouri-Rolla, University of New Hampshire, North Carolina State University, Rutgers University, Syracuse University, Washington University (St. Louis), West Virginia University, and University Center for Adult Education (Detroit).

[3] Glancy, Keith E., "The Continuing Education Unit – Pilot Project Report," National University Extension Association, Suite 360, One Dupont Circle, Washington, D.C., 20036, 1971.

Late in 1971, the Southern Association of Colleges and Schools adopted a revised Standard Nine[4] on Special Activities which incorporated the concept of the continuing education unit. The new standard relating to extension, public service, and continuing education activities in the member institutions included the following two statements:

> "The continuing education unit should be used as the basic instrument of measurement for an individual's participation in and an institution's offering of non-credit classes, courses, and programs."
>
> "The CEU records will serve as a part of the full-time equivalent student account for the institution."

Thus, the CEU became a part of the reporting system for most of the more than 600 universities and colleges (all of those with continuing education or extension activities) that are members of the Association. The Georgia System of Higher Education took the lead in developing a set of operational guidelines[5] which were subsequently used as a basis for guidelines in several other states and also for the guidelines issued by the Commission on Colleges of the Southern Association.[6] Several universities outside the Southern Association also adopted the CEU and awarded units to the participants in at least a portion of their noncredit activities.

The value of a uniform unit and method of recording continuing education quickly became apparent to several professional organizations. The American Nurses' Association issued a statement on continuing education[7] which included

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[4] *Standards of the College Delegate Assembly,* Atlanta: Southern Association of Colleges and Schools, 1972.

[5] *Utilization of the Continuing Education Unit (CEU) Within the University System of Georgia.* Atlanta: Regents of the University System of Georgia. 1973.

[6] "The Continuing Education Unit: Guidelines and Other Information," Commission on Colleges, Southern Association of Colleges and Schools, Atlanta, Georgia, 1973.

[7] An Interim Statement on Continuing Education in Nursing," Council on Continuing Education, American Nurses' Association, New York, September, 1972.

the recommendation that the CEU be used in recording and reporting such activities. Several state nursing associations have developed guidelines which reflect the requirements of their membership. The National Association of Boards of Pharmacy included a Uniform Professional Continuing Education Act in its Continuing Education Pamphlet[5] and adopted the continuing education unit as the unit of measurement.

As experience with the application of the CEU increases, additional professional organizations, institutions, and regional and professional accrediting associations are giving serious consideration to the continuing education unit and how it can be of benefit to them, to their members, and to the participants in their educational activities.

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[5] *Continuing Education Pamphlet*, Chicago: National Association of Boards of Pharmacy, 1973.

NATIONAL PLANNING CONFERENCE

Organizations participating in the National Planning Conference conducted in Washington, D.C., July 1-2, 1968:

Adult Education Association of the U.S.A.

American Association of Collegiate Registrars and Admissions Officers

American Association of Junior Colleges

American Association of State Colleges and Universities

American Council on Education

American Society of Engineers

American Society for Personnel Administration

AFL-CIO

American Hospital Association

American Medical Association

American Society for Engineering Education

American Society for Public Administration

Association of University Evening Colleges

Cambridge Institute for Management Education

U.S. Civil Service Commission

Commission on Engineering Education

U.S. Department of Commerce

U.S. Department of Defense

U.S. Department of Health, Education and Welfare

U.S. Department of the Air Force, DOD

E.I. DuPont de Nemours and Company, Inc.

Engineers Council for Professional Development

Engineers Joint Council

General Learning Corporation

McGraw-Hill, Inc.

National Academy of Engineers

National Home Study Council

National Society of Professional Engineers

National University Extension Association

Office of Emergency Planning, Executive Offices of the President

Science Research Associates

United Auto Workers

United States Armed Forces Institutes

U.S. Office of Education

ORGANIZATIONS REPRESENTED AT NATIONAL TASK FORCE MEETINGS BY INVITATION

American College Testing Program

American Nurses' Association

American Physical Therapy Association

Department of Defense

Southern Association of Colleges and Schools

Union Carbide Corporation

University of Georgia

University of North Carolina

University of Virginia

Virginia Polytechnic Institute and State University

Richard E. Bland

Richard E. Bland is an Associate Professor of Engineering Research at Pennsylvania State University in State College, Pennsylvania. Mr. Bland served in 1972 as the Chairman of the National Commission on Fire Prevention and Control and is past Chief of the State College Volunteer Fire Department, where he currently serves as assistant chief.

Mr. Bland has a B.A. from Hiram College and an M.S. from the University of Michigan.

Andrew C. Casper

Andrew C. Casper is Chief of the San Francisco Fire Department. Chief Casper entered the Department in 1947 and rose through the ranks until his promotion to Chief in March 1976. During his years with the Department he has received the Fire Commission Letter of Commendation, the Chief of Department Letter of Commendation, the S.F.F.D. Meritorious Award, and the Annual Award for Herioism from the San Francisco Council of Lions Clubs.

Trudy M. Daly

Trudy M. Daly is Fire Safety Education Director for the Hartford Insurance Group. Since 1968, Ms. Daly has directed the Junior Fire Marshal program which annually reaches some two million children throughout the country in kindergarten through third grade. She is also responsible for making fire prevention films, public service announcements for television, and for general fire education. She represents her company at various fire organizations.

Ms. Daly has a B.A. from Albertus Magnus College in New Haven, Connecticut.

Richard B. DeLong

Richard B. DeLong is City Manager of San Mateo, California. As the representative of local government, Mr. DeLong has been the chief administrative officer responsible for the implementation of community fire protection master planning and is the city manager representative to the United States Fire Administration.

Mr. DeLong has been involved in city management since 1955. Before becoming City Manager of San Mateo in 1976, he served in that position in Milipitas, California, and Mountain View, California.

Mr. DeLong received a B.A. and an M.S. from the University of Denver.

David J. Floyd

David J. Floyd is a Lieutenant in the New York City Fire Department and President of the International Association of Black Professional Fire Fighters, an organization that he founded in 1970.

During Lt. Floyd's 18 years with the Department, he has worked in some of the busiest companies in the city. He has served as a training and recruitment officer, and also as Assistant Director of the Model Cities Fire Safety Education Trainees. He represents the IABPFF on the Joint Council of National Fire Service Organizations, and he is a former member of the National Professional Qualifications Board for the Fire Service.

David N. Francis

David N. Francis is Senior Vice President for Fire Protection of the Ansul Company in Marinette, Wisconsin. Mr. Francis joined the company in 1949 and since then has served in various marketing and management capacities in the company's fire protection operations. In 1972, he was named to his present position.

Mr. Francis is a member of a number of industrial trade associations and has served on the Board of Directors of the Fire Equipment Manufacturers' Association. He served as President of that Association in 1970-1972. He is presently a member of the Board of Directors of the National Fire Protection Association.

Mr. Francis is a graduate of DePauw University in Greencastle, Indiana, and served in the U.S. Navy during World War II.

Charles E. George

Charles E. George is the President Emeritus of the Professional Fire Fighters Association of Louisiana.

Chief George is a veteran of more than 27 years of service as a career firefighter in the Lake Charles, Louisiana, Fire Department. He served in all promotional positions from Basic Firefighter up to Assistant Fire Chief. He now serves as Deputy State Fire Marshal of Louisiana and as Chairman of the Louisiana State Commission on Fire Fighting Personnel Standards and Education. He is also a member of the Fire Service Professional Standards Development Committee for Fire Service Officer Qualifications of the National Fire Protection Association.

Chief George has completed all in-service Advanced Fire Training Courses and Specialized Training offered by the Louisiana State University Fire Training Program.

Martin E. Grimes

Martin E. Grimes is Assistant Vice President-Government Affairs of the National Fire Protection Association. Mr. Grimes, who has an extensive background in fire service and fire protection administration, joined the British Fire Services in 1941. During his 19 years with the United Kingdom Fire Services, he rose to the rank of Divisional Officer, Senior Fire Protection Officer for a metropolitan county of 1,700,000 persons. Between 1960 and 1969, he modernized and reorganized the fire protection of Bermuda, serving as Commissioner of Fire Services. He joined the staff of the National Fire Protection Association, Boston, Massachusetts, in 1969, and for six years headed the Public Protection Division until promotion to his present position.

Mr. Grimes is a graduate of St. Brendan's College in Bristol, England, and the National Fire Service Staff College, United Kingdom. He is also a Fellow of the British Institution of Fire Engineers.

James J. Guthrie

James J. Guthrie is the Chairman of the Department of Fire Safety Education at Miami-Dade Community College in Miami, Florida.

Dr. Guthrie, who has developed one of the most advanced fire science curricula for community colleges in the nation, has been involved in fire-related education since 1962 when he joined the faculty of Miami-Dade. He has also taught in high schools in New York, New Jersey, and Florida.

Dr. Guthrie has a BSIE from San Jose State College, an M.S. from Osewgo State College (New York), and an EdD from Nova University. He is also a Certified Safety Professional.

John F. Hurley

John F. Hurley is the President of the International Association of Fire Chiefs Foundation, Inc.

Mr. Hurley was a firefighter in Rochester from 1938 to 1974. He held all positions in the Rochester Fire Department, including serving fire years as Commissioner. Mr. Hurley also was the Head of the Fire Science Department at Monroe Community College. He is a past President of the International Association of Fire Chiefs and was a member of the National Commission on Fire Prevention and Control.

John L. Jablonsky

John L. Jablonsky is Vice President of Engineering and Safety of the American Insurance Association.

Mr. Jablonsky has been with the Association since its merger in 1965 and was with its predecessor, the National Board of Fire Underwriters, since 1954. He has also served as Director of Codes and Standards and Assistant Vice President, being promoted to his present position in May 1978.

Mr. Jablonsky was a member of the National Commission on Fire Prevention and Control and serves on numerous technical and professional committees related to fire protection safety, building construction, and codes and standards.

Mr. Jablonsky has a B.M.E. from the New York University College of Engineering and served two years in the U.S. Air Force.

Alan B. Knox

Alan B. Knox is Associate Vice Chancellor for Academic Affairs and Director of Continuing Education and Public Service at the University of Illinois at Urbana.

Dr. Knox has extensive experience in all aspects of continuing education for adults. During the 1950's, he held a variety of adult education teaching, research, and administrative positions with public schools, industry, and university sponsors. Between 1960 and 1965, Dr. Knox was Associate Professor of Adult Education at the University of Nebraska, Chairman of the Department of Adult Education, and Director of the Office of Adult Education Research. Between 1965 and 1970, he was a Professor at Teachers College of Columbia University and Director of the Center for Adult Education.

Dr. Knox has published many articles, chapters, and monographs in his field and is a member and officer of a number of professional associations. Dr. Knox has a B.A., M.A., M.S., and Ed.D. from Syracuse University.

Kenneth Long

Kenneth Long is Chief Engineer and General Manager (retired) of the Los Angeles City Fire Department. Chief Long joined the Department in 1947 and advanced through the ranks. He was appointed Deputy Chief, a position in which he was second in command of the Department, in 1969 and Chief in 1975. He retired in June 1977.

Chief Long served with the United States Coast Guard during World War II.

David M. McCormack

David McCormack is the Superintendent of the National Fire Academy, National Fire Prevention and Control Administration. He has extensive experience in the areas of education and the fire service. He began with the New York City Fire Department in 1954 and advanced in rank to become Deputy Chief in 1972.

He has also served as the President of the Uniformed Fire Officers Association of New York in 1973-1974, and as an Associate Professor in Fire Science and Administration and Chairman of the Fire Sciences Department of the John Jay College, New York City, from 1974-1975.

Mr. McCormack received his B.A. in Mathematics at Brooklyn College and an M.S. in Administration at Columbia University.

Edward H. McCormack, Jr.

Edward McCormack, Executive Secretary of the International Society of Fire Service Instructors, began his career in the fire service as a call firefighter with the Hopkinton, Massachusetts, Fire Department. Prior to joining the Society, he served as Chief of Fire Training of the Massachusetts Division of Occupational Education.

Mr. McCormack presently represents the Society on the National Fire Instructors Qualifications Committee, and he is a member of the Executive Board of the International Fire Service Training Organization.

Theodore F. Mariani

Theodore F. Mariani is President of Mariani and Associates, a Washington, D.C., architectural and engineering firm.

Mr. Mariani is a Registered Architect in six states and a registered Professional Engineer in seven states. He is past Chairman of the National Codes and Standards Committee of the American Institute of Architects (AIA) and President of the Washington Metropolitan Chapter. He has also served as Chairman of the Urban Design Committee of the American Institute of Planners and Chairman of the District of Columbia Zoning Commission.

Mr. Mariani has a B.S. from Virginia Military Institute and an M.S. from the Massachusetts Institute of Technology. His graduate studies also include Urban Design and City and Regional Planning at the Catholic University of America.

James W. Morgan

James W. Morgan is an attorney in Madison, Wisconsin.

Mr. Morgan has a long-standing professional and personal interest in fire-fighting. Since 1960 he has been the Executive Secretary of the Wisconsin State Firemen's Association. He was the first President of the Wisconsin State Firemen's Association (1968-1976) and first Vice-Chairman of the National Volunteer Fire Council (1976-1977), and one of the primary organizers of both organizations. Mr. Morgan is currently Chairman of the National Volunteer Fire Council.

Mr. Morgan has a B.B.A. from the University of Wisconsin School of Commerce and a J.D. from the University of Wisconsin Law School.

Frank A. Palumbo

Frank A. Palumbo is the Secretary-Treasurer of the International Association of Fire Fighters.

Mr. Palumbo, who was a career fire fighter in the South Bronx for sixteen years, has been active in the IAFF since 1972. He has served as Treasurer, Sergeant-at-Arms, and Vice President of IAFF Local 94 in New York City, as Vice Chairman of the New York City Fire Department Pension Fund, and as First District Vice President of the IAFF. He is a member of the Executive Board of the Maritime Trade Department of the AFL-CIO and a member of the Board of Directors of the National Fire Protection Association.

Mr. Palumbo completed courses in Labor Relations and Collective Bargaining at Cornell University, Wagner College, and the Xavier Institute of Industrial Relations.

Jack C. Sanders

Jack C. Sanders is the Fire Marshal for the State of Oklahoma. Mr. Sanders served for 20 years with the Tulsa, Oklahoma, Fire Department as a fire-fighter, company officer, district chief, and Director of Public Information and Public Relations. Before his appointment as State Fire Marshal in 1966, he served as Fire Marshal for the City of Tulsa.

Mr. Sanders has served on a number of national committees, including the Standards Council of the National Fire Protection Association and the National Bureau of Standards Committee to Evaluate Fire Research Projects. He is also responsible for coordinating rural fire protection master planning programs for the NFPCA.

Mr. Sanders attended Tulsa University and served as a pilot in the U.S. Air Force during World War II.

Henry D. Smith

Henry D. Smith is the Head of the Fire Protection Training Division of the Texas Engineering Extension Service of the Texas A&M University System.

Mr. Smith has been active in the fire service and in fire-related education since 1941. Between 1947 and 1950, he was Fire Chief of the Harlingen, Texas, Fire Department. In 1950, he became a Fireman Training Instructor with the Texas Engineering Extension Service and was promoted to his present position in 1955. He is a Certified Safety Professional.

Mr. Smith is a member of numerous state and national associations and currently serves as Chairman of Fire Service Training for the National Fire Protection Association, as a member of Instructor Standards for the Joint Council of Fire Service Organizations, and as Chairman of Texas Fire Protection Personnel Standards and Education. He also is an advisor to the Mexico National Safety Congress.